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Researching Rattleless Rattlesnakes

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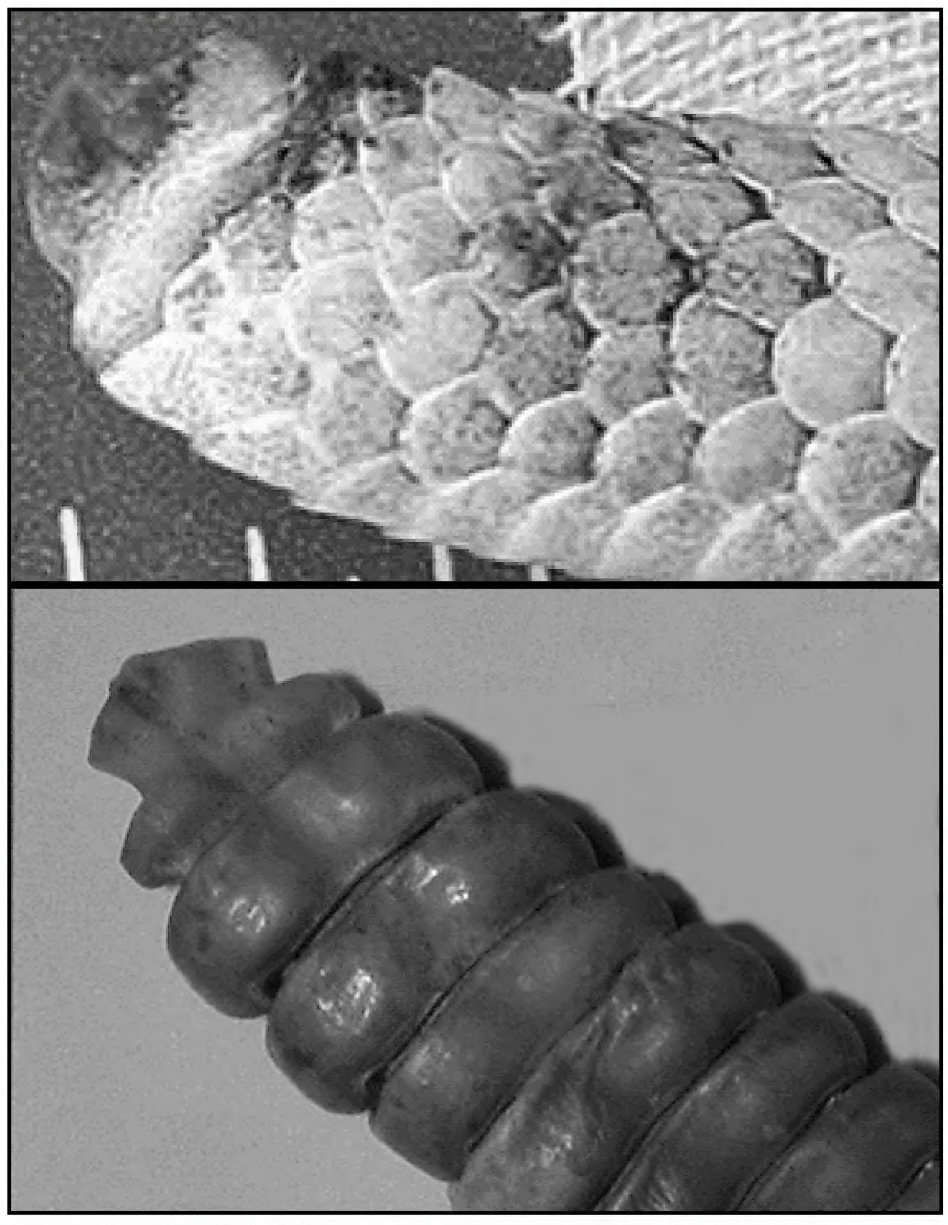
It's time for a water break. I set my pack down, take a seat on a boulder, and wring the sweat out of my shirt for the umpteenth time that evening. Even though it's 10:30 P.M., the air is a balmy 96°F and absolutely still. At least here, deep in the darkness of the arroyo, I am safe from the relentless bites of the *jejenes*, who anxiously await my return to camp on the nearby rocky shoreline. I turn to retrieve my water jug from my pack and quickly retract my hand. There, in the light of my headlamp, is the reward for my discomforts. An Isla San Esteban rattlesnake, *Crotalus estebanensis*, glides across my pack just as silently as the island night. I reach—this time more carefully—for my snake hook and data book.

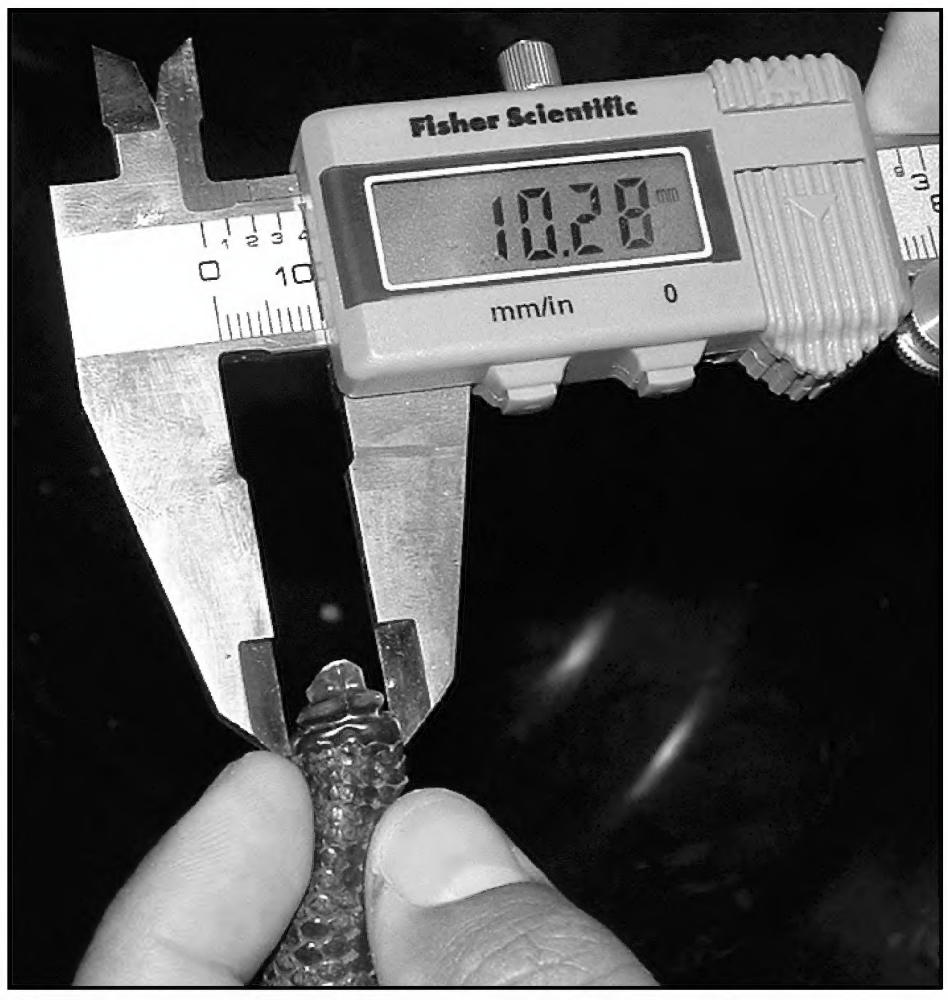
The data I collected that night, as on many other nights, will help answer certain biological questions I have posed for my doctoral dissertation. In addition to *C. estebanensis*, my collaborator Dr. Méndez de la Cruz and I have also sampled the Isla San Lorenzo rattlesnake (*C. lorenzoensis*) and the Isla Santa Catalina rattlesnake (*C. catalinensis*), all of which are island endemic species found in the Sea of Cortés, Mexico. The rattle of rattlesnakes has inspired myths and legends throughout time and of all the captivating aspects of these animals, this biologically complex feature is without a doubt most responsible for their fame. What makes these island species unique is that their rattles are in variable states of evolutionary reduction; these rattlesnakes are losing the very part they were named for.

The hypothesis that the rattle evolved to warn away predators or other potentially dangerous animals is popular among herpetologists. Since the islands on which these rattleless species occur lack terrestrial predators, herpetologists suspect that these snakes are losing their rattles due to relaxed selection for a warning mechanism. This doesn't mean that rattlesnakes are breaking their rattles off more often or that they are accumulating segments less often. This means that the style, which is the most basal and the only living portion of the rattle, has actually been modified or reduced such that these species no longer retain segments with each shed. Some individuals are completely rattleless and needless to say, this makes locating them in the dark that much more difficult.

When relaxed selection for a complex feature occurs, biologists have an opportunity to study the evolutionary process of vestigialization. Vestigialization of a complex feature, such as the rattle, involves an alteration and/or reduction of the behavioral, morphological, and physiological components that comprise the feature and a breakdown of their integration. In island rattlesnakes, this means that individuals may not rattle (or attempt to rattle if lacking segments) as often or for as long when threatened by what they perceive as a potential danger. They may not even rattle at all and they could even change the



The reduced rattle style of *Crotalus catalinensis* (top) and the normal rattle style shape of its nearest mainlandrelative, *C. ruber* (bottom).



Measuring the rattle style morphology of *Crotalus estebanensis*.

context in which they use their rattle. I already knew from previous researchers that the morphology of *C. catalinensis* was reduced such that few, if any, individuals retained rattle segments. The same was suspected to be true for *C. lorenzoensis* and *C. estebanensis*, but how much they were reduced and whether or not they were reduced in a similar fashion, was unknown. Also unknown was the physiological capacity of island species to sustain rattling. Anyone who has ever encountered very many western diamondback rattlesnakes, *C. atrox*, knows that they are quite cantankerous and can rattle for hours, literally. Researchers have learned that this is because rattlesnakes have specialized muscles, called tailshaker muscles, that can contract and relax at up to 100 times per second. This rapid vibration of the style drives the rattle to produce sound. Whether or not the tailshaker muscles of island species showed reduction or alteration in their special physiology, as evidenced by a slower rattle, was undetermined. By choosing the right variables to measure, I could answer these questions by comparing my data collected in the field on the island species to the same data I collected on the nearest mainland relatives to each island species. Easy, right?

Not quite. Traveling to and working on the islands in the Sea of Cortés may sound at first like a pleasurable way to complete a dissertation, but actually doing so has proved challenging in several ways (just getting this project idea past my dissertation committee was challenge enough). Permits to work on the islands and with island endemic species are difficult to secure and arranging for boat travel to some of the islands can take days. Heat exhaustion, biting/stinging insects, gastrointestinal upsets and the potential for rattlesnake bite combined with the isolation of these uninhabited islands pose very real and very serious health risks; there's no fresh water, no air-conditioning, no doctor, and no dialing 911. Costs associated with travel, equipment, insurance, and other safety measures can also be prohibitive. But thanks to partial funding from the Chicago Herpetological Society and the enthusiasm (or naïveté?) of youth, I have been successful in overcoming most of these challenges and will be publishing the results of this work soon. Thanks, CHS!

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Checklist of Amphibians and Reptiles of the Comarca Lagunera in Durango-Coahuila, Mexico

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Abstract

A tentative checklist of 67 species and subspecies of amphibians and reptiles is reported from the Comarca Lagunera area in Durango-Coahuila, Mexico. Included are 8 frogs and toads, 4 turtles (2 endemic species), 27 lizards (7 endemic species), and 28 snakes (2 endemic subspecies). This list also reflects current nomenclature and taxonomic status from this herpetologically poorly known area.

Introduction

The amphibians and reptiles of northeastern Durango and southwestern Coahuila generally are not well-known. Various regional studies in this area (Smith, 1934, 1936; Schmidt and Bogert, 1947; Conant, 1953, 1963, 1968, 1969, 1977; Webb and Hensley, 1959; Legler, 1959; Williams et al., 1960; Webb, 1965, 1970, 1990; Axtell and Axtell, 1971; Commins and Savitsky, 1973; Morafka, 1977, 1982; Adest, 1977; Pough et al., 1978; Iverson, 1979; Bezy, 1989; Morafka et al., 1992; Good, 1994; Smith et al., 1995; Axtell and Webb, 1995; Lemos-Espinal et al., 1998, 1999, 2002; Wiens et al. 1999; Guzmán and Muñiz-Martínez, 1999; Gadsden et al., 2001a, 2001b; Seidel, 2002; Smith et al., 2002; Estrada-Rodríguez et al., 2003, 2004; Castañeda et al., 2004, 2005; Leyva-Pacheco et al., 2004; García de la Peña et al., 2004, 2005) have provided much important information over the years, but a regional checklist has been in demand.

We provide here a tentative checklist of the amphibians and reptiles of this poorly known region.

Methodology

Herpetofauna surveys were carried out from 2000 to 2004 with seasonal samplings at several localities in the Comarca Lagunera within the Mapimian subprovince of the Chihuahuan Desert. The area (approximately 4,900 km^2) lies between latitudes 25°15′N and 25°40′N and longitudes 102°55′W and 103°50′W. Torreón, Coahuila, lies approximately in the center of this area. The elevation oscillates between 1100 and 1350 m above sea level. The average monthly temperature ranges from 13°C in January to 28°C during the summer. Average annual rainfall is 230 mm but varies greatly among years (Schmidt, 1979). The vegetation is dominated by a desert thornscrub of *Larrea tridentata*, *Acacia* sp., *Opuntia* sp., *Prosopis* sp., *Agave* sp., and *Yucca* sp. (Breimer, 1985).

This list has been compiled from personal records based on field observations by the authors and from literature citations. Organisms observed during the survey were captured with hand collection, noose and water-spray techniques (Estrada-Rodríguez et al., 2004). All the amphibians and reptiles captured

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were released at the point of initial sighting immediately after being identified and photographed. Since capturing was not selective, the number of specimens observed is a crude measure of the relative abundance of each species and subspecies during the period of survey (Davis and Dixon, 1961). In presenting our report we have given attention to data on localities and on the habitat occupied by each species or subspecies. Identification as to species was based on the guides of Conant and Collins (1998) and Stebbins (2003); and keys of Powell et al. (1998) and Lemos-Espinal et al. (2004).

The checklist includes recent nomenclatural changes, both scientific and standard English names (Liner, 1994; Bell et al., 2003; Flores-Villela and Canseco-Márquez, 2004).

Results and Discussion

The checklist below lists the species and subspecies of amphibians and reptiles occurring in the Comarca Lagunera region. This list also reflects current nomenclature and taxonomic status. We registered 67 taxa (species and subspecies): 8 anurans (12%), 4 turtles (6%), 27 lizards (40%), and 28 snakes (42%).

This small area shows a relatively high diversity of amphibians and reptiles (67 species and subspecies). This includes many endemic species of reptiles (*Uma exsul*, *Crotaphytus antiquus*, *Xantusia bolsonae*, *Xantusia extorris*, *Sceloporus lineolateralis*, *Sceloporus maculosus*, *Sceloporus cyanostictus*, *Kinosternon durangoense* and *Gopherus flavomarginatus*) and two endemic subspecies of snakes (*Bogertophis subocularis amplinotus* and *Nerodia erythrogaster bogerti*). Unfortunately, the disordered development of many human activities has had great impact on the integrity and biological diversity of the Comarca Lagunera. Major threats include habitat destruction, fragmentation, degradation and contamination by aerial crop dusting with pesticides.

Several endemic lizard species of this area (namely *Uma exsul*, *Crotaphytus antiquus*, *Sceloporus lineolateralis*, *S. maculosus*, *S. cyanostictus*, *Xantusia bolsonae* and *X. extorris*) are confined to "islands" of suitable habitat surrounded by inhospitable terrain. These reptiles do not migrate from one area to another due to unsuitable conditions between their "island" habitats. For such species habitat modifications or disturbance can be devastating. Presently, anthropogenic degradation of the habitats of these species is accelerating. These sites are not protected; we urgently recommend that a conservation plan be established to assure perpetuation of this endemic herpetofauna.

Checklist of Amphibians and Reptiles of the Comarca Lagunera, Durango-Coahuila, Mexico

Class Amphibia—Amphibians

Order Anura—Frogs and Toads

Family Bufonidae—Toads

Bufo cognatus Say, *in* James 1823 (Great Plains Toad).
Localities: all municipalities of the Comarca Lagunera (Gomez Palacio, Lerdo, Tlahualilo, Cuencame, Nazas, San Juan de Guadalupe, San Pedro del Gallo, Rodeo, and Simón Bolivar, Durango; Torreón, Matamoros, Viesca, San Pedro de las Colonias, and Francisco Madero, Coahuila).
Habitat: wet plains in agriculture areas and flooded fields.
Specimens observed: 60.

Bufo debilis insidior Girard 1854 (Green Toad).
Localities: Villa de Bilbao, Saucillo, Venustiano Carranza, and Ciudad Viesca, mpio. Viesca; Laguna de Mayrán, mpio. San Pedro de las Colonias, Coahuila.
Habitat: shortgrass prairies and desert flats, where it is seldom seen except after heavy rains in temporary pools.
Specimens observed: 99.

Bufo punctatus Baird and Girard 1852 (Red-spotted Toad).
Locality: Sierra El Sarnoso, mpio. Lerdo, Durango.
Habitat: in rocky areas, shallow temporary pools or quiet water of seasonal stream channels.
Specimens observed: 4.

Family Scaphiopodidae—Spadefoot Toads

Scaphiopus couchii Baird 1854 (Couch's Spadefoot Toad).
Localities: all municipalities of the Comarca Lagunera (Gómez Palacio, Lerdo, Tlahualilo, Mapimí, Cuencame, Nazas, San Juan de Guadalupe, San Pedro del Gallo, Rodeo, and Simón Bolivar, Durango; Torreón, Matamoros, Viesca, San Pedro de las Colonias, and Francisco I. Madero, Coahuila).
Habitat: temporary pools and irrigation channels in agricultural areas; frequents shortgrass plains.
Specimens observed: 34.

Spea multiplicata (Cope 1863) (New Mexico Spadefoot Toad).
Localities: Villa de Bilbao, Saucillo, Venustiano Carranza, and Ciudad Viesca, mpio. Viesca, Coahuila; Laguna de Mayran, mpio. San Pedro de las Colonias, Coahuila.
Habitat: temporary pools and shortgrass plains.
Specimens observed: 8.

Family Microhylidae—Narrowmouth Toads

Gastrophryne olivacea (Hallowell 1856) (Great Plains Narrowmouth Toad).
Localities: Sapioriz, Vallecillos, and Graceros, mpio. Lerdo, Durango; Vicente Suarez, mpio. Mapimí, Durango.
Habitat: pools bordering the Nazas River.
Specimens observed: 20.

Family Ranidae—True Frogs

Rana berlandieri Baird 1854 (Rio Grande Leopard Frog).
Localities: La Posta in Sapioriz, Cañón de Fernández in Graceros, mpio. Lerdo, Durango; Las Luisas, mpio. Gómez Palacio, Durango.
Habitat: dams of the Nazas River and permanent pools.
Specimens observed: 50.

Rana catesbeiana Shaw 1802 (Bullfrog).
Localities: La Posta in Sapioriz and Cañón de Fernández in Graceros, mpio. Lerdo, Durango.

Habitat: dams of the Nazas River and permanent pools.
Specimens observed: 8.

Class Reptilia

Order Testudines — Turtles

Family Kinosternidae — Mud and Musk Turtles

Kinosternon durangoense Iverson 1979 (Yellow Mud Turtle).
Localities: Aguanaval and Nazas Rivers, Durango and Coahuila; Laguna de Mayran, Coahuila.
Habitat: lagoons, pools, and irrigation channels.
Specimens observed: 42.

Kinosternon hirtipes (Wagler 1830) (Mexican Mud Turtle).
Localities: Cañón de Fernández and Sierra El Sarnoso, mpio. Lerdo, Durango.
Habitat: Nazas River and pools.
Specimens observed: 9.

Family Emydidae — Emydid Turtles

Trachemys gaigeae (Hartweg 1939) (Big Bend Slider).
Localities: Cañón de Fernández, mpio. Lerdo, Durango.
Habitat: rivers, pools, dams and ponds.
Specimens observed: 12.

Family Testudinidae — Tortoises

Gopherus flavomarginatus Legler 1959 (Bolson Tortoise).
Locality: mpio. Tlahualilo.
Habitat: grasslands and dunes.
Specimens observed: 3.

Order Squamata — Lizards and Snakes

Suborder Sauria — Lizards

Family Anguidae — Alligator Lizards

Gerrhonotus infernalis Baird 1859 ("1858") (Texas Alligator Lizard).
Localities: Sierra de Jimulco, mpio. Torreón, Coahuila; Cañón de Fernández, mpio. Lerdo, Durango.
Habitat: Rockies, stream channels; riparian *Prosopis* (mesquites), and riparian grasslands.
Specimens observed: 4.

Family Gekkonidae — Geckos

Coleonyx brevis Stejneger 1893 (Texas Banded Gecko).
Localities: Francisco Zarco (water reservoir), Graseros, mpio. Lerdo, Durango; Sierra El Sarnoso, mpios. Gómez Palacio and Lerdo, Durango; Sierra el Rosario, mpios. Lerdo and Mapimí, Durango; Dunas de Viesca, mpios. Viesca and Matamoros, Coahuila; Laguna de Mayrán, mpio. San Pedro de las Colonias, Coahuila; Valle de Acatita, mpios. Talahualilo, Durango and Francisco I. Madero, Coahuila.
Habitat: under several types of dominant vegetation (*Larrea tridentata*, *Suaeda nigrescens*).
Specimens observed: 11.

Hemidactylus turcicus (Linnaeus 1758) (Mediterranean Gecko).
Locality: All communities of the Comarca Lagunera.
Habitat: buildings, window screens, or near lights where insects congregate.
Specimens observed: 30.

Family Crotaphytidae — Collared and Leopard Lizards

Crotaphytus antiquus Axtell and Webb 1995 (Coahuila Collared Lizard).
Locality: Sierra de San Lorenzo, Coahuila.
Habitat: Most often seen sunning atop rocks or found hiding beneath rocks.
Specimens observed: 4.

Crotaphytus collaris (Say, *in* James 1823) (Collared Lizard).
Localities: Sierra El Sarnoso, mpios. Lerdo and Gómez Palacio, Durango; Sierra del Rosario, mpios. Lerdo and Mapimí, Durango; Cañón de Fernández, mpio. Lerdo; Cañón del Indio, Sierra de las Noas, mpio. Lerdo, Durango and Torreón, Coahuila; Sierra de la Campana, mpio. Tlahualilo, Durango; Sierra de Jimulco, mpio. Torreón, Coahuila; Hacienda de Hornos, mpio. Viesca, Coahuila; Sierra el Clarín, mpio. San Pedro de las Colonias, Coahuila; Valle de Acatita, mpios. Tlahualilo, Durango, and Francisco I. Madero, Coahuila.
Habitat: limestone ledges or rock piles are favorite habitats.
Specimens observed: 17.

Gambelia wislizenii (Baird and Girard 1852) (Longnose Leopard Lizard).
Localities: Sierra El Sarnoso, mpio. Lerdo, Durango; Saucillo, Villa de Bilbao, and Gabino Vázquez, mpio. Viesca, Coahuila.
Habitat: Almost always found on loose, sandy or gravelly soil, and frequently close to a borrow.
Specimens observed: 8.

Family Phrynosomatidae — Includes Zebra-tailed, Earless, Fringe-toed, Spiny, Tree, Side-blotched and Horned Lizards

Cophosaurus texanus scitulus (Peters 1951) (Southwestern Earless Lizard).
Localities: almost all municipalities of the Comarca Lagunera.
Habitat: rocky desert flats and the vicinity of rocky cliffs and stream beds.
Specimens observed: 55.

Holbrookia approximans Baird 1859 ("1858") (Speckled Earless Lizard).
Localities: all municipalities of the Comarca Lagunera.
Habitat: abandoned agricultural areas, and outwash slopes of intermontane basins.
Specimens observed: 35.

Phrynosoma cornutum (Harlan 1825) (Texas Horned Lizard).
Localities: Sierra de Tlahualilo, and Sierra de la Campana, mpio. Tlahualilo, Durango; Cañón de Fernández, Sierra El Sarnoso, Nazareno, Sierra El Rosario, mpio. Lerdo, Durango; Laguna de Mayran and Valle de Acatita, mpios. San Pedro de las Colonias, and Francisco I. Madero, Coahuila; Río Aguanaval and Sierra de Jimulco, mpio. Torreón, Coahuila.

Habitat: flat open terrain with sparse plant cover; often found in areas of sandy, rocky, or loamy soil.
Specimens observed: 15.

Phrynosoma modestum Girard 1852 (Roundtail Horned Lizard).
Localities: Cañón de Fernández, Sierra El Sarnoso, and El Rosario, mpio. Lerdo, Durango.
Habitat: plains with rocky areas and shrubby vegetation.
Specimens observed: 5.

Sceloporus cowlesi Lowe and Norris 1956 (Southern Plateau Lizard).
Localities: Cañón de Fernández and Sierra El Sarnoso, mpio. Lerdo, Durango.
Habitat: mesquite (*Prosopis*) vegetation bordering Nazas River and near wood fences.
Specimens observed: 8.

Sceloporus cyanostictus Axtell and Axtell 1971 (Yarrow's Blue-spotted Spiny Lizard).
Localities: Sierra de San Lorenzo, mpio. San Pedro de las Colonias, Coahuila.
Habitat: rocky cervices and cliffs.
Specimens observed: 14.

Sceloporus grammicus Wiegman 1828 (Mesquite Lizard).
Localities: Cañón de Fernández, mpio. Lerdo, Durango; Aguanaval River, Durango.
Habitat: gallery forest, always on mesquite (*Prosopis* sp.) and ahuehuete trees (*Taxodium mucronatum*).
Specimens observed: 28.

Sceloporus jarrovii Cope, *in* Yarrow 1875 (Yarrow's Spiny Lizard).
Localities: Cañón de Fernández and Sierra El Sarnoso, mpio. Lerdo, Durango.
Habitat: rocky canyons and hillsides.
Specimens observed: 117.

Sceloporus lineolateralis Smith 1936 (Yarrow's Durango Spiny Lizard).
Locality: 10 km NE Pedriceña, Durango.
Habitat: slopes with limestone rocks.
Specimens observed: 12.

Sceloporus maculosus Smith 1934 (Spotted Spiny Lizard).
Locality: 22.5 km NE Pedriceña, Durango.
Habitat: slopes with limestone rocks in hills.
Specimens observed: 8.

Sceloporus magister bimaculosus Phelan and Brattstrom 1955 (Twin-spotted Spiny Lizard).
Localities: Cañón de Fernández, Sierra de España, Sierra el Sarnoso, and Sierra el Rosario, mpio. Lerdo, Durango; Sierra Mapimí, mpio. de Mapimí, Durango; Sierra de Jimulco and Sierra de las Noas, mpio. de Torreón, Coahuila.
Habitat: mesquite-yucca grassland and mesquite woodland.
Specimens observed: 14.

Sceloporus poinsettii polylepis Smith and Chrapliwy 1958 (Southern Crevice Lizard).
Localities: Cañón de Fernández and Sierra El Sarnoso, mpio. Lerdo, Durango; Sierra de la Candelaria, mpios. Simon Bolivar and San Juan de Guadalupe, Durango.
Habitat: rocky canyons, hillsides, and outcrops of limestone or granite.
Specimens observed: 30.

Uma exsul Schmidt and Bogert 1947 (Coahuila Fringe-toed Lizard).
Localities: Laguna de Mayran, mpios. San Pedro de las Colonias and Francisco I. Madero, Coahuila; and Laguna de Viesca, mpios. Viesca and Matamoros, Coahuila.
Habitat: quartz dunes and unusually compacted plains.
Specimens observed: 215.

Urosaurus ornatus caeruleus (Smith 1935) (Blue Tree Lizard).
Localities: Cañón de Fernández, mpio. Lerdo, Durango.
Habitat: ahuehuete trees (*Taxodium mucronatum*).
Specimens observed: 1.

Uta stejnegeri Schmidt 1921 (Desert Side-blotched Lizard).
Localities: all municipalities of the Comarca Lagunera.
Habitat: an abundant lizard in many areas; often found in sandy and saline soils, and on desert flats and foothills.
Specimens observed: 70.

Xantusia bolsonae Webb 1970 (Bolson Night Lizard).
Localities: Sierra el Sarnoso, mpio. Lerdo, Durango.
Habitat: rock crevices, under rocks and downed woody material.
Specimens observed: 4.

Xantusia extorris Webb 1965 (Durango Night Lizard).
Localities: Sierra el Sarnoso and Cañón de Fernández, mpio. Lerdo, Durango.
Habitat: *Yucca* sp., fallen branches of ahuehuete trees (*Taxodium mucronatum*).
Specimens observed: 5.

Family Scincidae—Skinks

Plestiodon obsoletus (Baird and Girard 1852) (Great Plains Skink).
Localities: Tlahualilo, mpio. Tlahualilo, Durango; Cañón de Fernández, mpio. Lerdo, Durango.
Habitat: stream channels; riparian grass and low shrubby growth. Rocky outcrops near thickets along permanent or intermittent streams are especially favored.
Specimens observed: 5.

Family Teiidae—Whiptails

Aspidoscelis inornata inornata (Baird 1859 ["1858"]) (Little Striped Whiptail).
Locality: Cañón de Fernández, mpio. Lerdo, Durango.
Habitat: foothills, rocky, grassy slopes, alluvial flats, and deteriorated grassland.
Specimens observed: 8.

Aspidoscelis marmorata marmorata (Baird and Girard 1852) (Western Marbled Whiptail).
Localities: Laguna de Mayran and Laguna de Viesca, mpio. San Pedro de las Colonias, Coahuila; Valle de Acatita, mpio. Francisco I. Madero, Coahuila; Tlahualilo, mpio. Talahualilo, Durango.

Habitat: usually where plants are sparse and there are open areas.
Specimens observed: 4.

Aspidoscelis septemvittata (Cope 1892) (Plateau Spotted Whiptail).
Localities: all municipalities of the Comarca Lagunera.
Habitat: prairie grassland, rocky hillsides, washes, and river bottoms grown to mesquite, acacia, cactus, and shrub.
Specimens observed: 32.

Suborder Serpentes (Ophidia)—Snakes

Family Typhlopidae—Blind Snakes

Ramphotyphlops braminus (Daudin 1803) (Brahminy Blind Snake).
Locality: Gomez Palacio, mpio. Gomez Palacio, Durango.
Habitat: a burrower in loose, moist soil.
Specimens observed: 2.

Family Leptotyphlopidae—Slender Blind Snakes

Leptotyphlops humilis segregus Klauber 1939 (Trans-Pecos Blind Snake).
Localities: Gomez Palacio, mpio. Gomez Palacio, Durango.
Habitat: a burrower under rocks near streams, springs, or other areas where moisture is present.
Specimens observed: 11.

Family Colubridae—Colubrid Snakes

Arizona elegans expolita Klauber 1946 (Mexican Glossy Snake).
Localities: Sierra el Sarnoso and Ejido San Felipe, mpio. Gómez Palacio, Durango; Cañón de Fernández, and Sapioriz, mpio. Lerdo, Durango.
Specimens observed: 4.

Bogertophis subocularis amplinotus Webb 1990 (Durango Rat Snake).
Localities: Sierra el Sarnoso, mpio. Lerdo, Durango.
Habitat: rock piles or mammal burrows.
Specimens observed: 1.

Diadophis punctatus dugesii Villada 1875 (Dugès's Ring-necked Snake).
Locality: Cañón de Fernández, mpio. Lerdo, Durango.
Habitat: moist habitat with watercourses where it may descend.
Specimens observed: 1.

Heterodon kennerlyi Kennicott 1860 (Mexican Hog-nosed Snake).
Locality: Pueblo Nuevo, Ejido San Felipe, and Ejido Arcinas, mpio. Gómez Palacio, Durango; Cañón de Fernández, mpio. Lerdo, Durango.
Habitat: gravelly prairies, floodplains of streams where loose soil is suitable for burrowing, and farmlands.
Specimens observed: 4.

Hypsiglena torquata janii (Dugès 1865) (Texas Night Snake).
Locality: Gómez Palacio and Lerdo, Durango; Torreón, Coahuila; Ejido Vallecillos, mpio. Lerdo, Durango; Ejido Horizonte, mpio. Tlahualilo, Durango.
Habitat: grassland, chaparral, and thornscrub. Occurs in both rocky and sandy areas.
Specimens observed: 5.

Lampropeltis alterna (Brown 1901) (Gray-banded King Snake).
Locality: Sierra el Sarnoso, mpio. Lerdo, Durango.
Habitat: rock crevices.
Specimens observed: 1.

Lampropeltis getula splendida (Baird and Girard 1853) (Desert King Snake).
Localities: Francisco Zarco (water reservoir), mpio. Lerdo, Durango; Ejido El Compás, mpio. Gómez Palacio, Durango.
Habitat: near streams or irrigation ditches.
Specimens observed: 2.

Masticophis flagellum lineatulus Smith 1941 (Lined Coachwhip).
Localities: Cañón de Fernández, Sierra el Rosario, Sierra el Sarnoso, mpio. Lerdo, Durango; Ejido Gabino Vázquez, Ejido Saucillo, mpio. Viesca, Coahuila; Finesterre, mpio. Francisco I. Madero, Coahuila; Laguna de Mayran, mpio. San Pedro de las Colonias, Coahuila.
Habitat: prairie, scrubland, farmland, rocky areas, mesquitales (*Prosopis* sp.).
Specimens observed: 10.

Masticophis taeniatus girardi (Stejneger and Barbour 1917) (Central Texas Whip Snake).
Locality: Sierra el Sarnoso, mpio. Lerdo, Durango.
Habitat: shrublands, brushlands, and rocky canyons.
Specimens observed: 4.

Nerodia erythrogaster bogerti (Conant 1953) (Nazas Water Snake).
Locality: Cañón de Fernández, and Ejido Sapioriz, mpio. Lerdo, Durango.
Habitat: highly aquatic, usually found in or near water, river bottoms, wooded borders of rivers, ponds, ditches, and cattle tanks.
Specimens observed: 3.

Pantherophis emoryi emoryi (Baird and Girard 1853) (Great Plains Rat Snake).
Localities: Cañón de Fernández, mpio. Lerdo, Durango.
Habitat: hides beneath stones and in rock crevices or burrows; often occurs along water courses.
Specimens observed: 4.

Pituophis catenifer affinis (Hallowell 1852) (Sonoran Gopher Snake).
Localities: all municipalities of the Comarca Lagunera.
Habitat: farmland, grassland, prairie, open brushland.
Specimens observed: 24.

Rhinocheilus lecontei tessellatus Garman 1883 (Texas Long-nose Snake).
Locality: Ejido Venecia, mpio. Gómez Palacio, Durango.
Habitat: mesquital (*Prosopis* sp.).
Specimens observed: 1.

Salvadora deserticola Schmidt 1940 (Big Bend Patchnose Snake).
Locality: Sierra el Sarnoso, mpio. Lerdo, Durango.
Habitat: rocky foothills with shrubs.
Specimens observed: 2.

Salvadora grahamiae lineata Schmidt 1940 (Texas Patchnose Snake).
Locality: Sierra de Jimulco, mpio. Torreón, Coahuila.
Habitat: rocky foothills.
Specimens observed: 1.

Sonora semiannulata semiannulata Baird and Girard 1853 (Ground Snake).
Localities: Torreón, mpio. Torreón, Coahuila; Ejido Venecia y Gómez Palacio, mpio. Gómez Palacio, Durango; Cañón de Fernández, mpio. Lerdo, Durango; Ejido Villa de Bilbao, mpio. Viesca, Coahuila.
Specimens observed: 5.

Tantilla atriceps (Günther 1895) Mexican Blackhead Snake.
Locality: Cañón de Fernández, mpio. Lerdo, Durango.
Habitat: gallery forest and mesquite (*Prosopis* sp.).
Specimens observed: 5.

Tantilla nigriceps Kennicott 1860 (Plains Blackhead Snake).
Localities: Ejido La Unión, mpio. Torreón, Coahuila; Santo Tomás community, mpio. Matamoros, Coahuila.
Habitat: abandoned farmlands.
Specimens observed: 2.

Thamnophis cyrtopsis cyrtopsis (Kennicott 1860) (Black-necked Garter Snake).
Localities: Sierra de Jimulco, mpio. Torreón, Coahuila; Sierra el Sarnoso, mpio. Gómez Palacio, Durango; and Cañón de Fernández, mpio. Lerdo, Durango.
Habitat: chiefly a stream snake of foothills, and chaparral-covered hillsides.
Specimens observed: 4.

Thamnophis eques megalops (Kennicott 1860) (Northern Mexican Garter Snake).
Localities: Cañón de Fernández, Lerdo, Durango.
Habitat: river bottoms, wooded borders of rivers, and mesquite.
Specimens observed: 1.

Thamnophis marcianus marcianus (Baird and Girard 1853) (Checkered Garter Snake).
Localities: Ejido San Toña, Ejido Luján, Ejido Masitas, Ejido San José de Viñedo, Ejido San Felipe, Durango; Las Luisas, mpio. Gómez Palacio, Durango.
Habitat: streambeds, springs, and irrigation ditches.
Specimens observed: 17.

Family Viperidae — Rattlesnakes

Crotalus atrox Baird and Girard 1853 (Western Diamondback Rattlesnake).
Localities: Sierra el Sarnoso, Ejido La Luz, Ejido Dinamita, Ejido San Felipe, mpio. Gómez Palacio, Durango; Cañón de Fernández, Sierra el Rosario, mpio. Lerdo, Durango; Ejido Saucillo, mpio. Viesca, Coahuila.
Habitat: grassland, shrubland, river bottoms, sand dunes, and rocky upland areas.
Specimens observed: 7.

Crotalus lepidus klauberi Gloyd 1936 (Banded Rock Rattlesnake).
Localities: Cañón de Fernández, mpio. Lerdo, Durango; Sierra el Sarnoso, Ejido Dinamita, mpio. Gómez Palacio, Durango.
Habitat: rocky ridges, hillsides, streambeds, and wooded borders of rivers.
Specimens observed: 8.

Crotalus lepidus lepidus (Kennicott 1861) (Mottled Rock Rattlesnake).
Localities: Sierra el Sarnoso, Ejido Dinamita, mpio. Gómez Palacio, Durango; Cañón de Fernández, Sierra el Rosario, mpio. Lerdo, Durango.
Habitat: chiefly a mountain rock-dweller that frequents rocky ridges, hillsides, streambeds, and wooded borders of rivers.
Specimens observed: 12.

Crotalus molossus molossus Baird and Girard 1853 (Blacktail Rattlesnake).
Localities: Cañón de Fernández, Sierra el Rosario, Sierra el Sarnoso, mpio. Lerdo, Durango; Ejido la Florde Jimulco, mpio. Torreón, Coahuila.
Habitat: rockslides, outcrops, areas near cliffs, and stream courses.
Specimens observed: 13.

Crotalus scutulatus scutulatus (Kennicott 1861) (Mohave Rattlesnake).
Localities: Sierra el Sarnoso, mpio. Gómez Palacio, Durango; Sierra el Rosario, mpio. Lerdo, Durango.
Habitat: grassland, scrubland, creosote bush, mesquite, and mountain slopes. Specimens observed: 5.

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Herping in Australia—Field Notes and More
Part 10: The Western Plains

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Drier Country

As one moves farther west from Sydney and away from higher points of the Great Dividing Range, the terrain gets generally flatter and drier. However the so-called "Western Slopes" really extend about as far west as Dubbo (about six hours drive northwest of Sydney), in the New South Wales central west. It is only northwest from Dubbo along the main western (Mitchell) Highway, that one drives along dead-flat plains and sees the last of the low hills disappear into the horizon. Sure there are some rocks and hills west of here, but these are merely isolated outcrops and the like as opposed to being a part of the general and continuous "Great Divide."

This area from Dubbo west is also a part of the Murray/ Darling Basin, which is the largest (in area) freshwater basin in Australia. It occupies the entire inland of New South Wales as well as adjacent parts of Victoria, South Australia and Queensland. The western slopes of the ranges drain into this basin. While the area is arid, there are a few basic habitat types, including rocky hills, red-soil sand dunes and the black soil plains, usually associated with the watercourses. The entire region is effectively a mosaic of these habitats and in spite of the intensive agriculture in the form of grazing, wheat farming and irrigated crops throughout the region, there are many areas of each habitat type in reasonably natural form remaining.

Perhaps my first taste of the dry western New South Wales herpetofauna came during a trip to Bathurst with my family as a child. We were heading to the mining settlement of Hill End to do a spot of gold panning. On the main road between Hill End and Sofala my dad hit the brakes to stop for a big black shingleback skink (*Trachydosaurus rugosus*).

This is about as far east as these lizards come in this part of New South Wales and the species typifies the herpetofauna from the arid regions of southeast Australia. Because they can't tolerate humidity, they are never found east of the Great Dividing Range in New South Wales. Most specimens kept in Sydney similarly expire due to the almost inescapable humidity.

My first trip to the Western Plains was a hitchhiking trip to the town of Trangie, midway between Dubbo and Nyngan on the Mitchell Highway. I and fellow herper Colin Fitzgerald were visiting a husband and wife, Robert and Rhonda Pither, who'd offered to put us up for a week, while we searched the area for critters. I'd met them when hitchhiking around Oberon a few months earlier in search of copperheads, blotched bluetongues and Cunningham's skinks (what else do you do around Oberon?)

On the way to Trangie we were having great trouble thumbing a ride just on the far side of Bathurst. When we finally were picked up, we realized why we'd had so much difficulty in getting a lift. We'd been standing outside the Bathurst Jail and everyone driving past had probably thought we were a pair of escapees!

It was midwinter and our lift stopped about a kilometer west of Molong, situated in cold country to the West of Orange. Being early morning, there was thick frost on the ground, but that didn't stop us from rummaging over the nearby hillside in search of herps. It was strewn with smallish rocks and so made for easy hunting.

Within about ten minutes we found heaps of critters. All of it was typical western slopes herpetofauna. There were about five striped skinks (*Ctenotus robustus*), and a juvenile eastern brown snake (*Pseudonaja textilis*). Unlike Sydney specimens, which as juveniles are banded for the entire length of the body, this specimen only had a band on the head and nape. The rest of the snake was an even brown color.

But because of the cold all these reptiles were effectively frozen and seemed to be limp and totally dead. Yes it seemed that the cold night had killed all of them. All were put into a single bag and taken back to the car. Some time later the bag was opened and it was noticed that all the reptiles were not only thawing out, but also slowly coming back to life. Sure enough, a short time later all these reptiles were as lively as ever and none the worse for their natural deep freeze.

While talking about such deep freezes, I should perhaps mention the case of the gravid highlands water skink (*Eulamprus tympanum*) from Govett's Leap (Blackheath) that I once froze by mistake. This occurred at a friend's house when I was supposed to be photographing this and other reptiles. The lizard was placed in the freezer to slow it down so that it would sit still for the photograph. Obviously the intention had never been to freeze the lizard, but in the hurly-burly of our photographing, we both forgot about the lizard until it was way too late. A frozen lizard was retrieved from the freezer. The lizard was rock solid and you could tap a hard surface with it.

Sure enough, the lizard later thawed out and showed absolutely no ill effects from its ordeal. Not only that, but all the young were born live and without any obvious defects! Now there's an interesting area of research for some keen postgraduate student . . . cold tolerances of cold climate reptile species!

Trangie turned out to be a disappointment herpwise. Actually, we didn't even bother to look around there for anything. This area is flat as a tack and has a government run agricultural research station as its main employer. Hence all the surrounding area is cleared, treeless plain that is subject to heavy agriculture.

Our first day's hunting was an area of low rocky hills just

west of Dubbo. That yielded a number of *Unechis* snakes hiding under rocks. These are one of Australia's many small elapid snakes that feed principally on lizards. We also found a smattering of small skinks, including *Morethia boulengeri*, the area's dominant "feed skink" and a single *Lerista* sp. This is one of those burrowing skinks with reduced limbs. We also caught a nobbi dragon (*Amphibolorus nobbi*) under a log. These are essentially the inland New South Wales version of the jacky lizard (*Amphibolorus muricatus*) that is commonly seen on the coast. However I have never seen nobbi dragons in the same numbers that jacky's sometimes get to on the coast. Generally, if I see more than one or two nobbis in a day I am doing well.

In western New South Wales the nobbis are usually found in the low sandy hills and similar habitats, while the bearded dragons are usually found on the flat areas, and further west on the red soiled plains.

The following day we headed northwest of Trangie to an area of open wooded country between the cleared paddocks adjacent to the main highway about 25 km northwest of Nevertire. My dog bailed up a pair of bluetongues (*Tiliqua scincoides*) and a bearded dragon (*Pogona barbata*). In New South Wales, the eastern bluetongue lizards (*Tiliqua scincoides*) from west of the ranges are different from those to the east. Those from the west have no black or dark temporal stripe and the dorsal crossbands are very even and distinct. By contrast most of the coastal specimens of the "species" have less well defined dorsal crossbands and most (but not all) have well-defined black stripes along the temples.

I know of no clinal populations, at least in the region of Sydney, where the western variant comes as close to Sydney as the Cox's River, where it then meets a population of alpine blotched bluetongues (*Tiliqua nigrolutea*) to the north at Lithgow and east at Mount Victoria (both on the western extremities of the Blue Mountains). I have no doubt that these should be named as a separate taxon.

This spot northwest of Nevertire turned out to be a bit of a herper's jackpot. In the middle of a patch of trees about two kilometers from the road we found a swamp. That was good. Even better was that next to the swamp there was a rubbish tip! Having said this, we never found the rubbish tip on this day's hunting trip.

By the side of the water-filled swamp my reptile-finding dog had got to work and bailed up a reptile in a hollow log. This soon became the log comparable to Jesus Christ's loaf of bread. The log wasn't exactly huge, but it just kept on yielding material we wanted. In fact the log was only about six feet long and a foot thick, but it was heavy and thick in structure and we were unable to smash it in any way, so merely had to rock and poke at it.

Eventually we saw the head of an eastern bluetongue at one end. It then plopped out. Notwithstanding our capture, the dog refused to give up on the log. As I peered down one end while Colin poked at the other, I saw the head of an aggravated eastern brown snake (*Pseudonaja textilis*) that seemed quite determined not to leave the log. We bashed, smashed and poked at the log to get the snake to exit. However, nothing we did seemed to get the animal to budge save for a few open-mouthed strikes in my general direction. Anyone who has taken on an aggravated eastern brown snake will know exactly what I'm getting at. They are generally regarded as one of the tougher venomous snakes to catch and handle when agitated. And this one was not going to be an exception.

Meanwhile a legion of small skinks, geckos and frogs started to make their own exit from this very same log. Included were some tree skinks (*Egernia striolata*). These small to medium sized skinks are common in wooded habitats and rock outcrops throughout western New South Wales. The geckos that scampered from the log were what we then knew as dtellas (*Gehyra* sp.), although there are numerous species that were previously lumped under this name.

The frogs were however the most interesting. Included were a couple of large round *Cyclorana platycephala*. These are one of the so-called water-holding frogs, which are distinctive because of their huge bulbous shape. Also waddling out of the log were some holy cross frogs (*Notaden bennettii*), which are another bulbous species, this time with a bright yellow color and numerous smaller spots. Another species emerging from this incredible hollow log was the salmon-striped frog (*Limnodynastes salmini*), an inland equivalent of the striped grass frog (*Limnodynastes peronii*), from which it is separated by its reddish stripes as opposed to brown.

Then there were also green treefrogs (*Litoria caerulea*) and the small brown treefrog (*Litoria rubella*), which is effectively an inland version of the coastally distributed *Litoria dentata*. But the brown snake refused to budge.

In desperation, we lit a fire and tried to get the smoke to run up the log. To get the smoke thicker we put some green leaves on the flames and then it really smoked well. That's when we again had the end of the log over the fire and tilted the other end up. Suddenly another three tree skinks and the eastern brown snake made the frantic dash for the exit. Because the surrounding ground was effectively bare, the reptiles were easily caught.

By the time we'd properly bagged and looked at our mass of critters from the log from heaven, my dog was already onto something else. This time he'd bailed up a 2-m lace monitor (*Varanus varius*) who ended up in a tree. It was one of those huge box trees that typifies the bush country of western New South Wales. There was no hope of climbing up the tree to get the lizard so we decided to wait it out. The lizard won that race. By dark, the lizard remained ensconced in the upper branches and we called it quits.

After a night of tossing and turning at Trangie, we hitched back at the crack of dawn and returned to the same place. Luck had it that the lace monitor was now sitting on the ground next to the tree and stiff as a board. He was an easy capture and became a part of my collection for many years thereafter. He was housed in a huge outdoor "pit," complete with trees and pond. Unusual for his species he had the habit of running away and jumping into the pond and submerging himself until he felt safe to exit the water.

But while talking about our second day's hunting in this spot beyond Nevertire, I've got to tell you that lugging a six-foot lace monitor in a sack isn't enough to stop a pair of young and keen herpers and so we fossicked around this area for the rest of the day.

Under a log I found an adult De Vis's banded snake (*Denisonia devisi*). Brown in color, it looked like a death adder (*Acanthophis antarcticus*) and it became easy to see how the area's locals had been previously fooled into believing that death adders were a locally occurring species (they're not).

It was towards the end of the day that we found the long abandoned rubbish tip. This was a herper's dream. Lots of rubbish and sheets of tin all over the place. Under one such sheet I found a pair of adult De Vis's banded snakes. As I lifted the tin, the pair of snakes both shot down large cracks in the earth, but I was able to grab both by their tails and then prise them loose. In the same tip we also found more frogs, small skinks, another eastern bluetongue and yet another eastern brown snake before returning to Trangie that night.

Bourke

Our last two days were to be spent camping in a tent in the sandy red-soil country some 30 km southeast of Bourke in northwest New South Wales. Because of poor quality of the reddish and sandy soil in terms of agriculture, the habitat is relatively unspoilt and the vegetation fairly dense, although none of the trees and shrubs are particularly big. Between these there is either grass or open red dirt.

Herpwise it was fairly unexciting. My dog just kept bailing up brown shinglebacks (*Trachydosaurus rugosus*) and bearded dragons (*Pogona vitticeps*). Other than a few small geckos and some small skinks we found nothing else.

Some years later and during warm weather, I went on a night drive in this same area on the main highway. It didn't yield much more than lots of geckos of various species and a single large adult curl snake (*Suta suta*). That species(?) is common across a wide swathe of arid Australia and may well represent more than the single taxon currently recognized.

At the end of Easter in 1987 I returned to the same spot between Nevertire and Nyngan in search of the various frog species I'd previously found. This time I wanted to photograph them. When I left Sydney, everything seemed perfect. There had been nonstop rain for two days as a result of one of those big offshore low pressure cells that lands near Sydney every once in a while. The sky was totally gray and the rain kept falling as I headed west over the Blue Mountains.

But as I headed west beyond Lithgow the weather started to change. The rain stopped. By the time I was at Bathurst the clouds started to break up and by the time I drove through Wellington, about two hours up the road, there was barely a cloud in the sky. At the spot between Nevertire and Nyngan the scene was totally different. I was able to drive my four-wheel-drive right to the rubbish tip. No hiking in this time!

That was the good part. The bad part was that the swamp was bone dry. I could even drive to the middle of it! The rain that was drowning Sydney had simply never fallen here. No frogs, no herps, nothing. The tip was still there, but I didn't see a single living reptile or frog.

Oh and for the record, the soil here was all red, which shattered any theories some people may have had about De Vis's banded snakes being restricted to black soil areas only.

Goannas and None

On yet another trip to Western New South Wales I stopped just past those low rocky hills to the west of Dubbo. To be exact it's that dark and newish section of road that runs through a patch of dry woodland forest. You can't miss the place as it's the only part of the Mitchell Highway that actually runs through such habitat.

That was back when I still had my wonderful herp-finding dog. The weather was hot and the time of year was January. It was late in the afternoon. In the first hour the dog had found two Gould's monitors (*Varanus gouldii*) inside two separate hollow logs. He'd also treed another adult lace monitor! All this within mere meters of the road and adjacent to the fenceline. Thinking that this must be a great spot for herps, the decision was made to stay there for two full days.

During that time and in spite of intensive searching I found just two other lizards. One subadult lace monitor and a nobbi dragon. What did this all prove? There is always an element of luck when it comes to herping in the field.

Bad Luck and Good Luck

On that same trip I was with another herper, Steven Wright (no relation to the musician). From this spot just west of Dubbo we decided to hitchhike to Wilcannia, in far western New South Wales. We spent a day at some low rocky hills between Nyngan and Cobar in open Mallee country. Stephen and I found nothing of note, save for a Stimson's python (*Antaresia stimsoni*) skin. My dog bailed up loads of shinglebacks, especially in the midmorning, which was when most were active.

From there we headed towards Wilcannia. One evening we found ourselves on the Western side of Cobar, the next major town before Wilcannia, trying to thumb a ride. No one would pick us up, so we decided to wander into the bush and go to sleep. Waking up the next morning, Stephen decided to do what many people do in the morning and as he turned to wipe his backside he saw a pair of Shinglebacks right where he thought he'd done his business.

We decided to do a bit of fossicking around for herps before we hitched the last leg to Wilcannia. The habitat was red sand dunes, covered with low scrubby mulga trees and bushes. Not only that, but it turned out that we were also on the edge of one of the herping wonders of southern Australia.

It's called the Cobar rubbish tip! It had everything you could ever ask for in a rubbish tip. Surrounded by bush, it spanned many acres and the area itself was essentially an expanse of trees and rubbish, just nicely strewn in such a way

that you can lift up and look under almost everything.

So what did we find? Shinglebacks and more shinglebacks. Besides that, loads of bearded dragons (*Pogona vitticeps*), as well as netted dragons (*Ctenophorus inermis*). Dominating the herpetofauna here though were the Binoe's geckos (*Heteronotia binoei*), which are almost certainly one of the most common reptiles in Australia. The species is found in massive numbers throughout Australia's drier and dry tropical habitats. Why the Binoe's gecko is so common in the Australian bush I don't really know, but Mip Pugh (a Geelong-based herper) has noted that very few lizard-eating snakes actually eat the species. She presumes that's because of the relatively hard and spiny skin that the lizards have.

At the Cobar tip we found lots of sloughs of venomous snakes, but no snakes. This may have in part been due to the fact that the weather was so hot. The weather was so hot in fact that we only found reptiles under cover in the mornings and evenings.

Another reptile found around Cobar's rubbish tip is the western bluetongue (*Tiliqua occipitalis*). We never found any, although another spot where they are found is the Cobar Cemetery. In southern Australia, they are most common in the scrubby mulga habitats such as found around the Cobar tip.

Now all this was good fun, finding lots of lizards and bagging them. And after a few days at Cobar tip we had loads of lizards and no more bags to put any more in. But then the final question begged. What could we do with them? We ended up releasing the lot and returning home to Sydney!

More Interesting Reptiles from Out West

Cobar and Wilcannia is also an area of interest in terms of so-called eastern brown snakes (*Pseudonaja textilis*). For many years, it has been recognized that the eastern brown snakes from this general area are somehow different from those seen in most other areas, including coastal New South Wales, Victoria, South Australia, and for that matter even the Northern Territory (see for example Ehmann [1992]).

However, until recently no one had ever looked at these snakes in detail from a taxonomic point of view to determine whether or not they represent a different subspecies, species or whatever and actually quantifying the differences.

As a result, I took a strong interest in these snakes for more than 20 years and more recently have been joined by Scott Eipper (a Melbourne-based herper) in a quest for knowledge about these snakes. Although initially hamstrung by a severe lack of specimens, as more specimens have slowly become available, we found the plot thickened somewhat.

You see there are in fact two sympatric forms found in the Cobar/Wilcannia area. One is of the typical *P. textilis* form, while the other is the distinctively darker and reddish-brown morph. It is further separated by its larger eye and less pronounced ridge above the eye. The scalation is also very different. The ventral count usually runs over 240 versus under 210 for the "normal" form. The subcaudal count is usually under 50 versus over 55 in the "normal" form.

These are by no means minor differences! There are also noticeable differences in the head scalation, including in the prefrontals and internasals. All of which goes to prove that in Australia there is much to be found out yet about even our most common species of reptiles.

Western New South Wales is also a bit of a Mecca for people looking for the broad-banded form of the lace monitor, sometimes known as the "Bell's form." Now before going any further, let me make a few brief points. This color morph is merely that, a color morph. These animals are not a different race or species and it is merely a manifestation of the presence or absence of a specific allele or alleles. The broad-banded lace monitors freely mix with and interbreed with the more normal color phase and as a rule they produce offspring that are either one or other color morph, although on rare occasions intermediates do occur.

I've seen clutches of lace monitor eggs hatch to produce both broad-banded and normal morph young, including those bred by Victorian herper Stuart Bigmore, that hatched in 2001. I kept lace monitors in large outdoor pits for many years, and true to Murphy's Law, because this was a species I was always after, I was never very good at finding and catching them. This was especially so for the broad-banded ones.

However, as with most herps, if one is sufficiently determined, one can eventually acquire some. Save for relatively isolated populations in drier coastal areas, such as the Hunter Valley and Bundaberg in Queensland, the broad-banded phase is essentially an inland variant. It generally becomes rarer as one gets closer to the coast and most populations of lace monitors in inland areas have both the banded and unbanded variants. And while the broad-banded phase is found in a variety of habitats, anecdotal evidence suggests that most are found along rivers and watercourses flanked by river gums (*Eucalyptus camaldulensis*).

The first time I saw any broad-banded lace monitors in the wild was when I went chasing reptiles with fellow herper Alex Dudley north of Warren in Western New South Wales in an area generally known as the Macquarie Marshes. Our first stop was Marra Creek, which is the first watercourse that crosses the Warren to Carinda Road, about five km out of Warren about an hour-and-a-bit's drive northwest of Dubbo. The time of year was mid summer and I was all set to find some of the broad-banded lace monitors, having been told that they were common here.

In theory it should have been easy, but this time that wasn't so. My great reptile-finding dog failed me. Within minutes of our arrival on the first morning, he disappeared into the scrub after a large wild boar (pig) and was not seen again until breakfast time the next day.

Wandering around looking in trees and elsewhere for lace monitors is simply not an easy task. They are not the kind of reptile one can just go into the bush, find and catch. It was a bit like looking for a needle in a haystack. We saw nothing save for a few geckos (*Gehyra* sp.) and some tree skinks

(*Egernia striolata*), all of which were resting under tree bark.

The second day was intolerably hot. Over 40°C to be exact. Besides the fact that this sort of weather is even too hot for lace monitors, it was well and truly too hot for the dog. He was never too flash in the heat. We had to drag the dog around and he never delivered the goods.

I managed to capture a subadult female normal phase lace monitor sitting on the ground at the base of a tree. Whether it was the heat, or some other factor, the lizard didn't seem too inclined to run away and it only made a dismal attempt to walk off. Thus I was able to walk up to it and grab it.

We saw a few freshwater tortoise heads surface in the watercourse and so we jumped in after them. The water was completely muddy (as is typical of the Macquarie River and its tributaries) and so we had to grope around for the tortoises. We ended up grabbing a few, and all were large adult *Chelodina longicollis*, the so-called snake-necked tortoise. Besides more skinks and geckos, the only other reptile we saw was an adult eastern bluetongue.

Day three was cooler and this time we kept a better eye on the dog to make sure he didn't get carried away with any more wild pigs. He was soon barking up a tree, but unfortunately it was the wrong one! Sure enough it was a broad-banded lace monitor he'd found and a lovely large adult one at that, but the lizard merely climbed up to one of the higher branches about 20 m up and disappeared down a hollow, never to be seen again.

We couldn't climb up the tree and it was way to big to chop down with our axe, so had to kiss this lizard good-bye. The next day the same thing happened with another broad-banded lace monitor and so we left the area without what we wanted. I've actually collected around Warren and the Macquarie Marshes a few times, but still never managed to actually capture any broad-banded lace monitors in the area.

In a paddock between Nevertire and Warren I found an adult blue-bellied black snake (*Panacedechis guttatus*) and an adult red-bellied black snake (*Pseudechis porphyriacus*) under adjacent pieces of tin next to a farm dam.

On another occasion in October, I and a friend drove along the Carinda Road in search of snakes at dusk and immediately thereafter. The weather was seasonally warm, but cooler than I'd have expected to be good for snake activity. Just before sunset we found a pair of red-bellied black snakes mating in the middle of the road. As we approached the snakes, they broke free and fled towards the roadside ditch. We grabbed one each.

We also found two grey snakes (*Hemiaspis damelii*), which are common in the area. Another place I found this species was at the Quambone rubbish tip, which is in the same general area of New South Wales. Yes, these snakes fit their genus profile and like tin as well! Grey snakes are in many respects the inland New South Wales equivalent of the swamp snake.

As for broad-banded lace monitors, I eventually inherited three from Lightning Ridge in far northwestern New South Wales. All were caught in the black soil floodplains between the main township of Lightning Ridge and the NSW/Queensland border. I kept two and gave the third animal to a friend. All were large adult males.

When I collected reptiles at Lightning Ridge during the winter and spring months I found three smallish De Vis's banded snakes by the river at Goodooga under the only available sheets of metal, as well as eastern bluetongues and the usual array of smaller species, such as geckos, small skinks and frogs such as *Limnodynastes salmini* in the adjacent black-soiled river flats. The river itself was a mess, completely overrun with feral carp (*Cyprinus carpio*). The water surface almost appeared to be a seething mass of them.

In the ridge country immediately to the north of Lightning Ridge I also did some collecting. These areas are rock-based low sandy hills dominated by smallish pine trees interspersed with larger ironbark trees (*Eucalyptus sideroxylon*) and are where the famous Lightning Ridge opals are found. I found some sand goannas (*Varanus gouldii*) and nobbi dragons as well as some large *Oedura* geckos which lived alone and sheltered under the bark of dead and fallen ironbark trees. These all fitted the usual profile for such habitats and their species in western New South Wales.

At Lightning Ridge itself is a so-called Bore Bath. This is where water from an underground Artesian basin is pumped to the surface. The water is as warm as seen in a freshly filled bathtub and fills a swimming-pool sized bathing pool. This is one of the local tourist attractions. I found more interest in the immediately adjacent public toilets. From here I heard the familiar "Wark, Wark, Wark" which sent me running in for a look. The culprits were green treefrogs (*Litoria caerulea*), which had taken up residence in the moist places within the building. They weren't alone however. Numerous small desert treefrogs (*Litoria rubella*) were also hopping about in search of insects, even though the night was cool.

Throughout western New South Wales, I never ceased to be amazed at how low the temperatures could be for frogs to still be active. By way of example adjacent to a watercourse just west of Dubbo (about 100 m from the goanna spot mentioned above), I'd seen the Inland banjo frog (*Limnodynastes interioris*) active on winter nights with an air temperature below 12°C.

There is of course a reason for this. Western New South Wales and adjacent areas have what's generally known as a "Mediterranean climate." This is cool winters with steady rains and hot dry summers, just as you see around the Mediterranean countries of southern France, southern Italy, much of Greece and Turkey. As a result, the only time of year that the frogs can breed is in the cooler months. That's why you tend to find them active at this time of year and even on coldish nights.

To be continued

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Book Review: *Kentucky Snakes: Their Identification, Variation and Distribution* by Les E. Meade 2005. xiv + 323 pp. Kentucky State Nature Preserves Commission. Limited to 100 copies.

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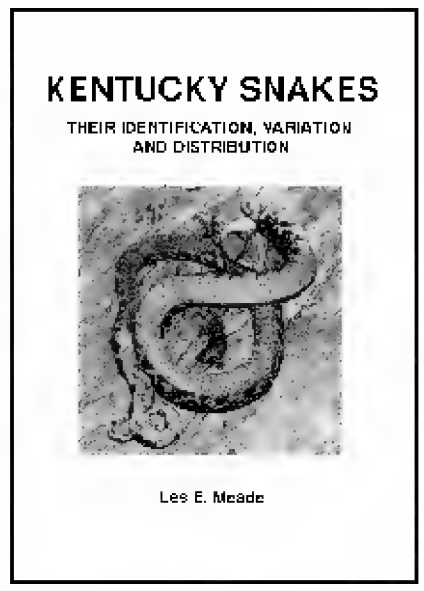
This definitive work will stand out as the most valuable contribution to the herpetology of Kentucky ever published. The author does not intend this monograph on Kentucky snakes as a field guide, but rather a work that summarizes all the known information on snake taxonomy, identification, variation and distribution in Kentucky.



This awesome volume provides an excellent overview on the serpents of Kentucky. The last comprehensive volume was by Roger W. Barbour, *Amphibians and Reptiles of Kentucky*, published in 1971 by the University of Kentucky Press. A recent pamphlet, *Kentucky Snakes*, was compiled by Bill Moore and Tim Slone, and published by the Kentucky Department of Fish and Wildlife Resources in 2002.

The book opens with a preface, list of acknowledgments, and introduction giving a brief summary of sense organs, feeding, locomotion, classification, sexual dimorphism, and external anatomy of snakes. This is followed by excellent drawings showing key characteristics used in species identification.

The author provides an excellent review of outstanding naturalists and herpetologists having made major contributions on the ophidia of Kentucky, followed by a checklist and key to the species and subspecies of Kentucky snakes.

Each species account includes sections on taxonomy, etymology, identification, description, variation, distribution in Kentucky, biology and conservation status. Distributional maps and b/w photographic plates for each of the 42 species and subspecies of snakes follow each description, and excellent color plates of each species can be found on 17 unnumbered pages at the end of the text. The description for each species and subspecies contains information about size and proportions, scutellation, coloration, and hemipenial morphology. The distributional maps were plotted by using collection data from literature and museum records. The biology section includes information on diet, behavior, habitat, reproduction and unusual traits, if appropriate.

A unique feature is that the author has cited museum numbers for all specimens of each Kentucky species or subspecies examined, which will make this volume a valuable tool for those working on species accounts for the Catalogue of American Amphibians and Reptiles.

This monograph is an awesome contribution supplementing what is known regarding the herpetofauna of Kentucky. The attractive volume is 8½ × 11", spiral bound. A brief literature cited section on all known references referring to Kentucky snakes is followed by appendix A describing the physiographic regions found within the state of Kentucky. Six major physiographic regions are recognized within Kentucky, and includes the Cumberland Plateau, Cumberland Mountains, Bluegrass, Mississippian Plateau, Western Coal Fields and Jackson Purchase.

Appendix B provides a glossary of terms, followed with 17 color plates rounding out this highly useful volume.

The author and publishers should be commended on producing such a useful, and much needed volume on the snakes of Kentucky. It certainly is a shame that only 100 copies of this magnificent book were available, as most major museum and University libraries and only a select few individuals will ever see or own this excellent monograph.

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HerPET-POURRI

by Ellin Beltz

***Kudos-saurus gabei*—a new species of educator**

For the third year in a row one hundred percent of Paul and Gabe Sereno's after school program "Project Exploration," have graduated from high school. In a nation where even high-performing California schools lose one-third of their students before graduation, to attain this record in the Chicago Public School System is just about inconceivable. Especially to somebody like me who had trouble getting myself and my daughter through the system. What are the secrets to their success? I could tell you, having been privileged to participate in their program while we were still in Chicago; however, the joy of discovery belongs to us individually. So I'm not going to tell you more than that the kids involved *and* all their donors, friends and guests have a great time, get the inside scoop on cutting edge dinosaur projects and end up doing things they might never expect. Join the adventure. Sign onto http://www.projectexploration.org their website, or—better yet—kick down a donation to this most worthy of causes. Project Exploration is a 501(c)(3) nonprofit: 950 East 61st Street, Chicago, IL 60637, (773) 834-7614.

How we spent our winter vacation

Since Ferndale's electrical substation is at flood stage (+ 25 feet) whenever the water gets too close, the power goes off. Curiously, few down here have generators, and those who do have them use them to do real things like charge up the fire trucks and such. The Palace served NYE by lantern light; their old-time mechanical cash register worked just fine. Everybody walked with flashlights and the Victorian Village was certainly very victorian (dark and spooky) for at least that one night. We were without power for almost 40 hours, no heat, but we could cook. And of course, gothy me, we had candles galore but had been told to prepare for 5 days of outage and so divided the total number by five and had only started burning our 2nd fifth when the lights came back on. Why the concern about five days? Since Fernbridge, as well as the Petrolia and Blue Slide roads were closed that warning was for five days completely cut off—no resupply. Just like our stores won't get resupplied and we won't get newspapers from the outside world again until Confusion Hill gets opened up. Right now if we had a repeat, I think it would go harder on people because their supplies are depleted from the first one. It was a Happy Feast of Lights especially when the power came back on when we were too tired to do anything with it! [*Eureka Reporter*, December 28, 2005, to January 6, 2006]

Puzzle solved

Fossil snakes from the Miocene era have been found in New Zealand, solving the puzzle of "were they there and now they are gone," or "were they never there at all?" They were there. Python-like constrictor fossils dating to 15 to 20 million years ago were unearthed by workers for the Museum of New Zealand. Also found were tuatara-like and six-foot crocodile-like teeth and moa eggshell fragments. [*MOKO*, October 2005, newsletter of the New Zealand Herp Society]

"Four eyes" for real

• A two-headed turtle hatched out in captivity in Wellington, South Africa. Their owner said, "Both heads feed. . . . When it gets scared, however, the heads move in different directions as if confused." [*The Week*, October 28, 2005, from Alan Rigerman]

• The World Aquarium of St. Louis bought a two-headed albino rat snake in 1999 for $15,000. Named "We," the female is for sale on EBay, with an asking bid of $150,000. A Harvard herpetologist speculated the animal could live ten to fifteen years; at about five it's considered to be entering prime breeding years. [*CNN*, January 2, 2006, from Ray Novotny]

The Living Dead Zone

• Turtles poisoned by an algae were hospitalized at the Clearwater Marine Aquarium unable to lift their heads, their "eyelids stitched shut to help eye lesions heal," according to the September 4, 2005 *Orlando Sentinel*. "Red Tide, [*Karenia brevis*, is] . . . a nasty but not uncommon offshore algae bloom that in humans irritates the throat and makes it hard to breathe, and leaves stinky dead fish littering the sand after every high tide. . . . This year [it appeared] . . . north of Clearwater to south of Sarasota. . . . [It was] extra toxic and deadly, . . . the worst in more than 30 years. . . . Divers and fishermen have reported a 2,000-square-mile "dead zone" void of undersea life off Pinellas County, where the worst of the Red Tide is concentrated. . . . It's not safe to dive in the Red Tide, and there are no fish to see. . . . `This is like somebody dropping a bomb out here. It's like Hiroshima or something. There's nothing left alive,'" said one man with 40 years experience in and on the local waters. [from Bill Burnett]

• It didn't stop in hurricane season either. The *Miami Herald* [October 16, 2006, from Alan Rigerman] reports: "The sea turtles now washing up on Florida's southwest shores are a sad reminder of the assault that has been going on for years against the Gulf of Mexico, courtesy of polluters and lax regulators in Tallahassee and Washington, D.C." More than 70 dead turtles and 58 dead manatees are attributed to the growth of the "Dead Zone," a 2000-square-mile area of the Gulf of Mexico in which nothing grows anymore. This year's Dead Zone was described as the largest one ever which is what has been said about it every year since I started writing about it in 1988. [http://ebeltz.net/column/chs/1988colu.html]

Pond of the unliving dead

I so rarely get "new stories." But here's a great one. Police in Libertyville, Illinois, no doubt had heard of a string of alligators captured throughout the midwest this year as thoughtless people continue to abandon unwanted pets or juveniles of this adaptive species continue to wander their way north as global warming raises ambient temperatures. Lest we forget, early visitors to St. Louis remarked on alligators sunning themselves in the Mississippi and promptly ate all they could shoot. I'm sure the local people had used them for omelets

and baby gator roasts for centuries by not killing everything they saw, but that's another story, too. For now, let me tell you of what happened on late summer day in Libertyville, in a pond that hooks up to the Des Plaines River over a little dam. The pond is in a subdivision and a resident saw an alligator floating in the pond while he was walking his dog one sunny afternoon. Huge panic. The police are called, can't find an "alligator expert" which is curious because I know at least two or three right there, including CHS's own gatorman Bob Bavirsha. Be that as it may. They then took matters into their own hands and shot the gator. Only then did they find out it was an inflatable plastic pool toy placed outside as a joke by some resident. The police chief said "I suppose it sounds kind of silly . . . [but] we did shoot it and hit it with one shot." One wonders, of course how "we" can use one bullet, but other than that, it's a great story and I hope you enjoyed it as much as I did. [*Libertyville Review*, September 1, 2005, from Ray Boldt] Other gators this year included one 3-footer caught in East Loon Lake in Antioch [*Daily Herald*, August 4, 2005, from Ray Boldt], and one 2½-footer that was shot for "safety reasons" which had been swimming in the St. Joseph River near South Bend, Indiana. [*South Bend Tribune*, June 8, 2005, from Garrett Kazmierski]

Egg carton

• "Inappropriate material" trucked in from near an interstate was used to build dunes apparently kept many turtles from nesting along a 3.7-mile dune project. Adult turtles took one sniff and turned back around, leaving nothing but a "false crawl" behind. [*South Florida Sun-Sentinel*, November 12, 2005, from Alan Rigerman]

• An endangered Kemp's ridley laid a nest of 49 eggs near Volusia, Florida, too near the flood line, so volunteers moved them to a better location. Only three Kemp's nests have been laid on Volusia beaches since 1988 according to the county's environmental management department. [*Orlando Sentinel*, June 11, 2005, from Bill Burnett]

• The first provable green sea turtle nest in Virginia was found this year. The *Orlando Sentinel* reports "State and federal wildlife officials are agog by the discovery [of 124 eggs and well-defined crawl] along a stretch of beach lined by vacation cottages. . . . A few females previously have laid eggs on beaches as far north as North Carolina's Outer Banks. [August 6, 2005, from Bill Burnett]

Ou` est le python?

Wrapped in giant constrictors, "snake men" on South Beach are freaking people out while harassing tourists for tips. One resident wrote, "These men should be prohibited from approaching anyone . . . not wearing a sign that says ` Where is the zoo?"" [*Miami Herald*, November 21, 2005, from Alan Rigerman]

A Tale of Two Agencies

• "Massive development planned for a vast stretch of wetlands . . . on the Lake-Sumter county line could threaten a prime breeding ground for whooping cranes—one of the world's most endangered birds." At risk are 6,000 acres conveniently located near a new $18 million interchange on the Florida Turnpike. Developing the interchange was expected and planned to increase development in the area, an obvious instance of two agencies on two different pages. A crane expert with the Florida Fish and Wildlife Conservation Commission said, "Sooner or later there is nowhere else [for wildlife to go], and we're almost at that point." The proposed development will provide homes for 17,000 humans, replacing the homes of a large percentage of the 500 known whooping cranes in the world. [*Orlando Sentinel*, December 10, 2005] Contributor Bill Burnett, wrote "Normally I would not send an article on birds. But it deals with all wildlife and the massive development occurring in Central Florida. Heck—all of Florida! Each time I go to that state, it has changed. Something has been built, moved, or filled in. Big dump trucks moving and hauling dirt are everywhere. Whooping cranes? No, more like ` Building Cranes!' It won't stop. It seems as if everything is finally to be bulldozed out of existance."

• Meanwhile a 10,000-acre marsh in Lisbon, Florida, is slowly but surely being restored. Beginning in 1989, the St. John's River Water Management District has bought out local farmers to reduce the arrival of agricultural nutrients into Lake Griffin and other waterways. The cost of the Esmeralda Marsh is around $22.5 million and climbing. [Leesburg, Florida *Daily Commercial*, December 7, 2005, from Bill Burnett] The article did not say if the Florida Department of Transportation is planning to put an interchange right on top of the marsh to promote more development, or not.

Iguana be a research subject

Iguanas wired to brain-wave recorders may provide Indiana State University researchers clues into the evolution of sleep. Daily resting has long been known to occur in humans and other vertebrates but recent research into sleep shows that fruit flies and many other invertebrates sleep too. [*Honolulu Star-Bulletin*, November 8, 2005, from Ms. G. E. Chow]

How the environment fared—2005

• Cactus moths were once hailed as heros in Australia, where they had been transplanted from their native Argentina to control the unwanted, also-alien prickly pear cactus. The moth was soon introduced around the world wherever prickly pears had become a weed species. The caterpillars of this moth eat cactus, and more cactus. At risk are the native prickly pears of the southwestern U.S. and Mexico because the moths have turned up in Florida and are headed westward. [*Miami Herald*, September 6, 2005, from Alan Rigerman]

• "About 200 loggerhead turtle hatchlings born on Hutchinson Island . . . were unable to crawl through large deposits of sea grass washed ashore by the storm. . . . Two dozen hatchlings were spit back—worn out—onto [a different beach] by the waves kicked up by Hurricane Katrina. Most were released later after recuperating, but 10 will be kept for a while until they're in better shape. [*Miami Herald*, August 29, 2005, from Alan Rigerman]

• An illegal Solomon Islands prehensile-tailed skink was captured by an Hawaiian family who spotted the lizard sunning

on their garden wall. No one claimed it, of course because loose nonnative animals are illegal in Hawaii and some—like this skink—are illegal even in captivity. Officials pointed out there is a nonnative amnesty program where owners turn in animals "no questions asked" and remain immune to prosecution. [*Honolulu Advertiser*, July 6, 2005, from Ms. G. E. Chow]

• "Coquis have croakhold on Big Isle, Maui. . . . It's unlikely the Big Island and Maui will ever be completely free of the annoying chirps of coqui frogs. . . . They're reviled in Hawai'i for their loud shrieking." [*Honolulu Advertiser*, from Ms. G. E. Chow]

• More hurricanes and tropical storms were named in 2005 than ever before; finally "Zeta" sprung up and dusted the Azores before spinning out. Katrina and Wilma entered the U.S. hurricane vocabulary.

• Snail grazing has been found to be the real cause of the sudden growth of mudflats in the southeastern U.S. Periwinkles graze out grasses by slicing them; a symbiotic fungus then turns the rest of the grass to slime which is eagerly consumed by the gastropod. [*Science Magazine*, December 10, 2005; *Atlanta Journal-Constitution*, December 16, 2005]

Herp People in the News

• Former CHS President and all-around herp man, Ron Humbert passed away. Turtles in Chicago lost a powerful spokesperson and the CHS lost one of its greatest supporters.

• Contributor Ray Boldt laments the loss of his darkroom when he moved in with family after having what he calmly describes as "a new heart valve and a pacemaker."

• *HerpDigest* continues to another year. Editor Allen Salzberg announced right before the holidays that his appeals had worked their magic and this necessary news agency continues for yet another year.

• "Arizona ranchers Matt and Anna Magoffin earned an unofficial nomination to the endangered species Hall of Fame by hauling a thousand gallons of water per week to a stock tank on their ranch for four years, all to save a frog on its last legs," the Chiricahua leopard frog. [*Smithsonian*, September 2005, from Alan Rigerman]

• Contributors Paul Breese and Ms. G. E. Chow made each other's acquaintance through this column. She now sends him clippings from her local papers, while he finishes his book about the Honolulu Zoo at his home on the Big Island.

• Alan Rigerman contributes regularly to his local papers (and this column) while keeping up his schedule with his personal animals and working as a substitute teacher. I bet the kids wish he could bring critters to school!

• Unlike previous years, Bill Burnett's holiday card shows him with his extensive aquaria and turtle trough. His letter suggests that some of his friends are unaware of his double life. Usually he sends a photo of him and whatever. See, I've forgotten. But I have the last one he sent with turtles. And I'll keep this one too. We were such kids when all this started 20 years ago!

Snakes eat loose pets

• "If our odds of getting bitten by a python truly are less than winning the lottery three weeks in a row, then perhaps the real venom of the situation is instilling unnecessary fear in the public." [Letter to the editor, *Miami Herald*, October 21, 2005, from Alan Rigerman]

• "It doesn't even matter if it's against the law to release exotic wildlife into Florida's environment. It's also against the law to abandon dogs and cats. . . . [These laws] haven't stopped anyone from dumping unwanted . . . animals . . . to fend for themselves or die." [*Miami Herald*, October 19, 2005, from Alan Rigerman]

Iguanas eat loose plants

"From Key Largo to Key West, iguanas now saunter across U.S. Highway 1, halting traffic; gobble up bright-colored shrubbery with never-endding appetites; spawn junior lizards like reptile assembly lines; and make dinosaur-like dashes upon raised legs when confronted by a human. One thing is clear: These reptiles ain't going nowhere. . . . The [Florida] Key's nonnative reptile explosion is blamed on local pet stores and ex-lizard owners who abandon the animals after they swell from cute six-inchers to kind of scary six-footers. Unfortunately . . . just about all of South Florida is just perfect for iguana breeding and feeding," according to the Leesburg, Florida *Daily Commercial*. One local nursery owner said, "People are getting hurt. I think we should whack them and start eating them. We should be able to open up iguana sandwich stands." Even though incensed, local animal-rights activist and director of the Marathon Turtle Hospital admitted that iguanas may have been on Florida in the past. He said, "The Calusa Indians had some recipes for cooking them." [August 8, 2005, from Bill Burnett's mom Hilda in Florida]

Rough trade

"It is a pretty good sign that a boy caiman lizard is in love when he clamps his powerful jaws on the tail or hind leg of a girl caiman lizard, stubbornly dragging behind her as she swims back and forth underwater," reports the *Chicago Tribune*. And you can watch at Shedd Aquarium if you're there at the right time. For now, rejoice that they've hatched out three baby caiman lizards—the first known in captivity. Even the babies were so aggressive that keepers immediately put each in its own container. [November 3, 2005, from Ray Boldt]

Nonnative lizards targeted

European wall lizards, *Podarcis muralis*, have become established at several places in the Midwest in 1951. The official story is that a resident of Cincinnati brought some back from Italy and released them in the local rock bluffs. They can survive local winters, grow to eight inches and are being trapped out of Falls of an Ohio state park because they have no known native predators. [*South Bend Tribune*, July 10, 2005, from Garrett Kazmierski] Sounds like they'd make great pets if the agency would consider selling them—or perhaps Italy wants them back? Meanwhile the State Division of Wildlife considers them "permanent residents." [http://www.dnr.state.

oh.us/wildlife/Resources/reptiles/europeanwall.htm] So what's up with the extermination?

First coqui in Hawaii before 1994

So many sources have been saying that coqui arrived in Hawaii in 1999, that one wonders where that came from. By 1999 coqui were already firmly established on at least two islands and were well known to readers of this column, at least. Here's a reprint from the March 1997 CHS *Bulletin* HerPET-POURRI: "Researchers in Hawaii report in an internet communication that they have a specimen of an exotic *Eleutherodactylus* captured and pickled from a site on the formerly coqui-free archipelago. In 1994, in the October *Journal of the New England Herpetological Society*, Bob Campbell reported a call record for *Eleutherodactylus coqui*, the Puerto Rican tree frog from the grounds of the Hyatt Regency Hotel on the island of Maui. He also reported that Cuban green anoles and house geckos were "conspicuous" on the property as well. If the coquis naturalize on Hawaii, they will be the first calling frog in the islands as the native poison arrow frog does not vocalize, according to the Journal. In September 1996 a second article reports that Bob found five "coqui" at the hotel in his second expedition which led him to suggest that a breeding population had become established on the grounds of the hotel. [http://ebeltz.net/column/chs/1997colu.htmlhttp://ebeltz.net/column/chs/1997colu.html]

An interesting perspective

"The entire anti-coqui agenda has been a carefully planned smear campaign. Fraudulent and exaggerated claims against the frogs have generated hate and intolerance to justify funding for a frog war. . . . This is the mindset for a lynching, not for sound, unbiased, scientifically supported environmental policy. . . . Federal funding earmarked for coqui control was withdrawn when the conflicts [of interest] and corruption became apparent. . . . When `experts' claimed nothing would kill coquis except caffeine, they did not disclose that the University of Hawaii owns the patent on the caffeine gene, extracted from coffee. This patent was issued in 1999, the same year as the ` frog crisis' began. . . . Integrated Coffee Technologies, Inc., sole licensee for the use of the gene [is] run by an ex-dean from the university. After the EPA discovered this . . . they refused to renew the permit to test caffeine in Hawaii. The coqui killers then rediscovered citric acid which had been used in the mid-1990s to kill frogs at the Honolulu Zoo. . . . Coqui control now involves the experimental use of calcium hydroxide, commonly referred to as hydrated lime, which can cause irreversible eye damage and skin burns as well as death from inhalation . . . as well as citric acid, [which] also will kill plants, beneficial insects, geckoes and other lizards, and will alter the pH of the soil and the microflora. It is ironic that frogs are dying worldwide because of pollution and development, while in Hawaii environmental extremists and exterminators are busy polluting and bulldozing the environment, trying to kill frogs. Really noxious pest, such as fire ants and stinging caterpillars (which coquis eat!) are spreading throughout the islands, while the public is distracted by this absurd, unwinnable frog war." [Sydney Ross Singer, *Honolulu Star-Bulletin*, June 7, 2005 from Ms. G. E. Chow]

Even the brochures from the frog exterminators are scary. The one someone sent me suggests bulldozing native vegetation and replacing with bedded plants in sterile lava medium to facilitate spraying for frogs. Where will it end?

Probable cause

The next guy who gets busted for turtle collecting for food might consider getting a major publication in the defendant's dock with him. In my opinion, *U.S. News and World Report* should be ashamed of itself. In the August 15-22, 2005, issue on page 39 they give several recipes for various turtle dishes from a 1796 recipe book[from Alan Rigerman]. Meanwhile all over Asia, turtles are on the losing end of the cooking hook as evidenced by the next story.

***Batagur baska* confiscated**

A shipment of turtles intended for China's insatiable middle-class was intercepted in a raid on a Vietnamese trafficker's home. Of the 30 turtles recovered, one was a *Batagur baska*, a Cambodian turtle so rare that the when a few were rediscovered in Cambodia in 2001, they were electronically tagged and released under the personal protection of King Norodom Sihamoni. The turtle recovered in Vietnam was tagged; he was last seen in Cambodia two years ago and was promptly repatriated by Vietnamese and Cambodian wildlife officials. Turtle collecting has hit record numbers and the effects are showing. In one western Malay river where 690 *Batagur baska* were found in 1999, only 40 were found in 2004. [*USA Today*, CNN, July 19, 2005, from Bill Burnett]

Cane toads in U.S., too

Residents outside Orlando, Florida, are on their own cane toad hunt. One man caught 32 *Bufo marinus* in just 20 minutes for the reporter who described him as "done, his back drenched in sweat, the bag damp with toad urine. . . . The commercial market for bufo toads, including demand at scientific-research facilities and in western Europe as pets, presents a supplement for the [Herpetological Breeding Research center in Fort Pierce]'s production costs." As elsewhere, they were translocated from their ancestral home near the hot and steamy Amazon basin of South America. Cane toads were released in 1936 in Florida in Palm Beach County. The University of Florida's Agricultural Experiment Station program intended to eradicate or control sugar-cane beetles. But the toads didn't eat the beetles. The populations are biggest south of Brevard County, but they're on the move now, hitchhiking in gardening plants and recreational vehicles. They eat pet food left out as well as insects and small animals. Their toxin can be deadly to animals under 40 pounds. A Palm City, Florida, vet said he saw one animal a week last year that had been bufotoxined and suggests pet owners wash the animal's mouth out well before taking it to the vet. [*Orlando Sentinel*, August 29, 2005, from Bill Burnett]

Thanks to everyone who contributed this month and to those who are about to send whole pages of newspapers and magazines folded a minimum of times and not stapled to me: Ellin Beltz, POB 1125, Ferndale, CA 95536.

Unofficial Minutes of the CHS Board Meeting, December 16, 2005

Linda Malawy called the meeting to order at 7:49 P.M. Board members Melanie Aspan, Sean Bober, Betsy Davis, Jennifer Spitzer and Jenny Vollman were absent.

Officers' Reports

Recording Secretary: In Melanie Aspan's absence, Cindy Rampacek read the minutes from the November board meeting. The minutes were accepted as read.

Treasurer: Jim Hoffman presented the November financial reports. Questions were raised about the massasauga fund and Jim stated that a check was sent and the funds did go to Illinois Natural History Survey. Linda Malawy asked that the minutes state that the funds were sent without board approval, since this dispersement was not voted upon. Jim explained that he felt the board had already approved keeping this fund empty. In response to a query from Linda, Jim replied that no cover letter was included to specify that the funds were for the massasauga project. Reimbursement has been received for parking fees for CHS participants at the 2005 Field Museum Members' Nights.

Membership Secretary: Membership stands at 586 this month

Corresponding Secretary: Deb Krohn discussed updating the call list on the voice message. It was suggested to have more than one member's phone number per category. Deb mentioned receiving calls from people interested in making a monetary donation in remembrance of Ron Humbert. The family has suggested donations to the CHS grant fund would be appreciated.

Publications Secretary: Mike Dloogatch passed out copies of the page that will appear in the December *Bulletin* in memory of Ron Humbert.

Committee Reports

Shows: Jenny Vollman was absent. The next show at the Notebaert is Thursday, January 5, 10:00 A.M. – 3:00 P.M. Discussion ensued regarding the benefits of participating in the Chicagoland Family Pet Fair. A decision will be made at the next board meeting.

ReptileFest: Linda Malawy mentioned that Jenny Vollman met with representatives from *Reptiles* magazine. CHS has three months of advertising arranged with the same ad layout as last year. Cindy Rampacek will be changing dates for previous Kingsnake.com ads. Linda Malawy volunteered to take in exhibitor applications. Gary Fogel mentioned that the applications need to be included with the January *Bulletin*. Mike Dloogatch volunteered to update the applications.
Library: Steve Sullivan announced new book donations from Krieger Publishing. Steve also stated that we did a decent amount on book sales. Steve mentioned that Don Wheeler is doing the art work on the Esther Lewis plaque but will not be able to get to it for several months. Linda Malawy asked Steve Sullivan about Chicago Wilderness and he said he will be checking into that.

General meetings: Mike Scott agreed to do the short herp presentation for the January general meeting. The January herp will be water snakes.

Nominating: Rich Crowley wants to give a big thank-you to the 2005 nominating committee. He mentioned that they did a great job. The committee had a lot to deal with this year; it was a big challenge. Linda Malawy and all the board members present also thanked the committee.

Grants: Jim Hoffman mentioned allocating money to the restricted funds account as soon as possible. Mike Dloogatch moved to allocate $2,000 for grant programs for 2006. Jim Hoffman seconded. The motion passed unanimously.
Conservation: Cindy Rampacek presented a report for IRCF and BIRP. The new Cayman governor visited the BIRP facility. The news article can be found at http://www.blueiguana.ky. BIRP is mentioned in the December 2005 [20(5)] issue of *Caribbean Travel and Life* magazine, page 27. IRCF has opened an official BIRP store at their website with Paypal. You can find conservation news as well as updates on IRCF online at http://www.IRCF.org

Awards: Linda Malawy mentioned that Betsy Davis is heading the awards presentation for 2005. Awards will be handed out at the January general meeting.

Old Business

Midwest frog site: Linda Malawy shared an update of the website progress with the board. The board discussed a request for funds for the site, and determined that we are not in a position to provide them at this time.

Herp vet directory: Linda Malawy asked Cindy Rampacek how the directory of herp veterinarians is coming along. Cindy replied that the list is near completion.

Membership survey: Deb Krohn has continued work on the membership survey. She mentioned that it should be done by the next board meeting.

CHS banner: Steve Sullivan will forward to Cindy Rampacek the CHS banner for kingsnake.com website.

New Business

CHS documents: There was discussion regarding the importance of knowing which board member has important CHS documents. Linda Malawy suggested creating a binder to hold all important papers. The binder would be placed in the care of one of the board members.

Mike Dloogatch shared with the board a concept for a tribute in remembrance of Ron Humbert.

North Park village contract: Mike Dloogatch reported that the CHS contract with North Park Village for meeting space will be up in January. CHS still has about two months before the new contract has to be signed.

Meeting reminders: Cindy Rampacek announced that she will be mailing out email reminders for upcomming CHS meetings.

Ideas and suggestions:

Raffle: Jason Hood suggested having a super raffle or auction on a website.

Storage: Linda Malawy mentioned that we need to find a new storage place for our trailer. Steve Sullivan suggested that we try the Chicago Park District because of our relationship with them or the University of Illinois–Chicago.

Mike Scott suggested giving members money off of their subscription or doing something to get members who have not exhibited in the past at ReptileFest to exhibit. Steve Sullivan mentioned that at last years ReptileFest there were exhibitor prizes for first time exhibitors.

Mike Dloogatch reported a donation of a complete set of CHS *Bulletin*s from the Humbert family. Mike suggested binding them and including them into the library.

Round table

Mike Dloogatch reported that a former CHS member has moved back from Arizona and is in need of an iguana cage.

Jim Hoffman wished the new board the best of luck in their endeavors.

Cindy Rampacek agreed.

Deb Krohn wished everyone a Merry Christmas.

Jack Schoenfelder wants to wish everyone a Happy Holidays.

A note of thanks was sent from the Ron Humbert family and shared with the board.

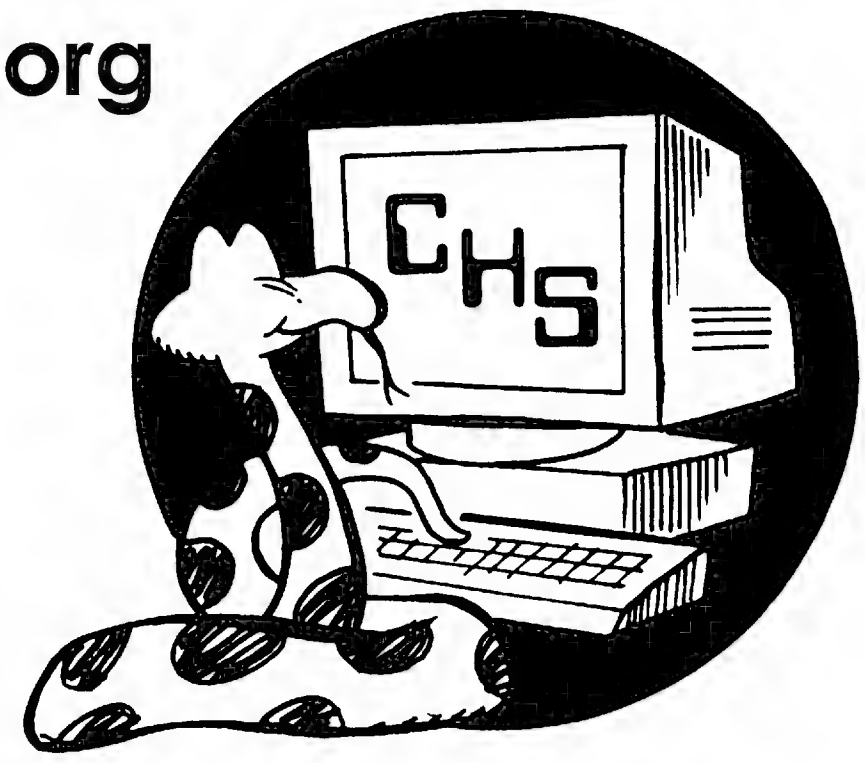
Linda Malawy gave a big thank-you to the board for all of their assistance and support and welcomed the new board members.

The meeting was adjourned at 10:25 P.M.

Respectfully submitted by Zorina Banas, Vice-president.

Next time you surf the WorldWide Web, crawl, run, slither, slide, jump, or hop over to the CHS web site!

www.chicagoherp.org



You'll find:

- **Announcements**
- **CHS animal adoption service**
- **CHS events calendar & information**
- **Herp news**
- **Herp links**
- **Meeting/guest speaker information**
- **Photos of Illinois amphibians & reptiles**
- **Much, much more!**

Chicagoherp.org is accepting applications for banner advertisements or links from herpetoculturists and manufacturers of herp-related products. Visit the site and contact the webmaster for details on how you can sponsor CHS!

Herpetology 2006

In this column the editorial staff presents short abstracts of herpetological articles we have found of interest. This is not an attempt to summarize all of the research papers being published; it is an attempt to increase the reader's awareness of what herpetologists have been doing and publishing. The editor assumes full responsibility for any errors or misleading statements.

SNAKE BEHAVIOR ON HIGHWAYS

K. M. Andrews and J. W. Gibbons [2005, Copeia 2005(4): 772-782] note that roads affect animal survivorship and behavior and so can act as a barrier to movement, which exacerbates habitat fragmentation and disrupts landscape permeability. Field experiments demonstrated that interspecific differences in ecology and behavior of snakes affected responses of species when they encountered and crossed roads. The probability of crossing a road varied significantly among southeastern U.S. snakes, with smaller species exhibiting higher levels of road avoidance. Species also differed significantly in crossing speeds, with venomous snakes crossing more slowly than nonvenomous ones. All species crossed at a perpendicular angle, minimizing crossing time. A model incorporating interspecific crossing speeds and angles revealed that some species cannot successfully cross highways with high traffic densities. Individuals of three species (*Coluber constrictor*, *Elaphe obsoleta* and *Crotalus horridus*) immobilized in response to a passing vehicle, a behavior that would further prolong crossing time and magnify susceptibility to road mortality. Identifying direct and indirect effects of roads on snakes is essential for mitigating road impacts and for designing effective transportation systems in the future.

RESTORING SNAKE HABITAT

J. K. Webb et al. [2005, Copeia 2005(4):894-900] note that in the last two centuries, European fire suppression practices have produced increases in vegetation density and canopy cover in many landscapes. Potentially, increases in canopy cover could negatively affect small populations of nocturnal reptiles that use sun-exposed shelters for diurnal thermoregulation. The authors hypothesized that vegetation encroachment over rock outcrops might partly explain the recent decline of Australia's most endangered snake, the broad-headed snake *Hoplocephalus bungaroides*. To test this hypothesis, the authors carried out a field study in Morton National Park, southeastern Australia. They removed overhanging vegetation from above shaded rocks and compared their subsequent usage by reptiles to control (shaded) rocks. In spring, one year after canopy removal, experimental rocks were 10.3°C hotter than control rocks and were used as diurnal retreat sites by three species of reptiles, including the endangered broad-headed snake and its prey (velvet gecko, *Oedura lesueurii*). By contrast, no reptiles used control rocks as diurnal retreat sites. Results show that modest canopy removal (15% increase in canopy openness) can restore habitat quality for nocturnal reptiles. Future studies are needed to examine whether controlled burns can maintain an open canopy above sandstone rock outcrops. However, until effective fire management measures are in place, sapling removal from overgrown rock outcrops could help to protect small populations of endangered reptiles.

MADAGASCAR LEAFNOSE: FEEDING BEHAVIOR

K. L. Krysko [2005, African J. Herpetology 54(2):195-200] describes feeding behavior of the Madagascar leaf-nosed snake (*Langaha madagascariensis*) and hypothesizes an alternative use for its unusual nasal appendage. *Langaha madagascariensis* employs a sit-and-wait foraging strategy and stalking prey is initiated once a snake is conscious of potential prey. Stalking is preceded by hooding, swaying anterior portion of its body laterally, tongue flicking, and advancing toward prey. Strikes are typically made at an extremely close distance, sometimes while a snake places its nasal extension directly onto the back of the prey's head. Prey was always grasped anterior to the pectoral girdle behind the head or neck region. Once prey is seized, it may be coiled around and is usually pulled off its perch and left to dangle in midair, while being worked into the back of the mouth toward the snake's rear fangs. *Langaha madagascariensis* also exhibits hooding while stalking prey. These hooding and swaying behaviors along with its cryptic color patterns, might allow *L. madagascariensis* to mimic a vine swaying in the wind. Because of the many behavioral and ecological similarities between *L. madagascariensis* and other arboreal snake species, the author hypothesizes that the nasal extensions in *L. madagascariensis* serve as an extension of its narrow head and is used as a point of reference during prey stalking.

PARTHENOGENESIS IN A MONITOR LIZARD

P. Lenk et al. [2005, Amphibia–Reptilia 26(5):507-514] report on a case of parthenogenesis in the varanid lizard *Varanus panoptes*. Parthenogenesis was observed in a female kept alone for three years. A clutch was deposited from which a single egg could be secured and incubated. Incubation was successful and a male specimen hatched. Obviously the newborn was produced without contribution of a father. After the unisexual reproduction, the mother was kept with males and bisexual reproduction was observed, too. The authors performed DNA fingerprinting and showed that the parthenogen and its mother exhibit almost identical DNA patterns. The bisexually produced offspring has only a subset of bands in common with the mother and another subset in common with the father. Thus DNA fingerprinting is in accordance with the authors' observations and confirms parthenogenesis. Comparing results with existing cytological models of parthenogenesis, the authors point out: 1. The mode of parthenogenesis described here is facultative, as the mother was able to reproduce in the bisexual mode as well. 2. The parthenogen is male and hence not a clone of the mother. 3. Almost complete heredity of maternal fingerprint markers. All these points considered, this case seems to fit to no known model of parthenogenesis exactly. But an additional recombination could result in homogamety (explaining the sex of the parthenogen) while expressing almost all maternal bands.

Chicago Herpetological Society
Income Statement: January 1 – December 31, 2005

Income		Expense	
Adoptions	$ 2,380.00	Adoptions	$ 1,800.25
Grants	20.00	Grants	4,500.00
ReptileFest	29,771.00	ReptileFest	18,603.67
Other CHS Shows	3,492.00	Other CHS Shows	877.19
Merchandise Sales	4,134.25	Merchandise Sales	4,018.72
Conservation—Massasaugas	612.00	Conservation—Massasaugas	1,697.36
Conservation—*Cyclura*	26.00	Conservation—*Cyclura*	155.00
Conservation—CIG*	90.00	Conservation—CIG	139.26
Membership Dues	14,383.87	Printing / Duplicating	13,061.01
Contributions	1982.55	Addressing / Mailing Service	2,482.67
Amazon.com	112.08	Bank Fees	26.00
Bulletin Ads	283.00	Donations	120.00
Bulletin Back Issues	26.50	Liability Insurance	4,899.00
Interest	252.44	Library	128.99
Raffle	1,419.90	Office Supplies	97.42
		Equipment	3,076.98
		Postage	2,473.11
		Rent (board meetings)	550.00
		Speaker Reimbursement	1,613.34
		Telephone	581.33
		Miscellaneous	178.13
Total Income	$58,985.59	Total Expense	$61,079.43

* CIG = Cryptobranchid Interest Group

Net Income $(2,093.84)

Chicago Herpetological Society
Balance Sheet: December 31, 2005

Assets	
Harris Checking	$ 8,090.76
Harris Money Market	27,861.30
Total Assets	$35,952.06
Equity	
Restricted – Adoptions	$ 3,327.63
Restricted – Grants	2,016.00
Restricted – Massasauga	72.00
Retained Earnings	32,630.27
Net Income	(2,093.84)
Total Equity	$35,952.06

Advertisements

For sale: rats and mice—pinkies, fuzzies and adults. Quantity discounts. Please send a SASE for pricelist or call Bill Brant, *THE GOURMET RODENT*, 6115 SW 137th Avenue, Archer FL 32618, (352) 495-9024, E-mail: GrmtRodent@aol.com.

For sale: from **The Mouse Factory**, producing superior quality, frozen feeder mice and rats. We feed our colony a nutrtionally balanced diet of rodent chow, formulated especially for us, and four types of natural whole grains and seeds. Mice starting from: pinks, $.17 each; fuzzies, $.24 each; hoppers, $.30 each; weanling, $.42; adult, $.48. Rats: starting with pinks at $.45 each, to XL at $1.80 each. Discount prices available. We accept Visa, MC, Discover or money orders. PO Box 85, Alpine TX 79831. Call **toll-free** at (800) 720-0076 or visit our website: < http://www.themousefactory.com> .

For sale: **high quality frozen feeders**. Over a decade of production and supply. Seven sizes of mice availabe: small newborn pinks up to jumbo adults. Prices start at $25 per 100. Feeders are separate in the resealable bag, not frozen together. Low shipping rates. Free price list. Kelly Haller, 4236 SE 25th Street, Topeka KS 66605, (913) 234-3358 evenings and weekends.

For sale: reptile books. *The Snakes of Arizona* by Jack Fowlie, 1965, 164 pp., b&w photo of each sp. and subsp., range maps, signed by author, hardbound, $55; *Some Common Snakes and Lizards of Australia* by David McPhee, 1963 (1959), 125 pp., many b&w photos, small, pocket book-size, spine slightly scuffed, softbound, $26; *Boy's Book of Snakes* by Percy Morris; 1948 (1st ed., 1st printing), 185 pp., many b&w photos, a few ink marks at bottom of introductory page, hardbound, $20; *A Check List of North American Amphibians and Reptiles* by Karl P. Schmidt, 6th ed., 1953, published by the American Society of Ichthyologists and Herpetologists, 280 pp., hardbound, $10; *The British Amphibians and Reptiles* by Malcolm Smith, 1973 (5th ed.), 322 pp., 91 figs., 16 b&w plates, excellent, detailed natural history info, DJ, hardbound, $25. All books in excellent condition except as noted. Postage $2.50 for orders under $25, free for orders of $25 or more. William R. Turner, 7395 S Downing Circle W, Littleton, CO 80122, (303) 795-5128, e-mail: toursbyturner@aol.com.

For sale: c.b. blue-tongued skinks, *Tiliqua scincoides*, born August 2004, $70 each. Linda Malawy, (630) 717-9955.

For sale: Currently available captive-bred animals: ball pythons (*Python regius*) sexed 2005 eating on frozen-thawed rats/mice 200g+ , normals $40 each or Pastels $550 males/$1100 females; Borneo short-tailed pythons (*Python breitensteini*), feeding on live mice, $125 each. Rich Crowley, (708) 646-4058 (cell) or (708) 485-5705 (home) or email at pogona31@ameritech.net.

Herp Tours: Why pay more? Travel with the International Fauna Society, a 501 (c)3 not-for-profit organization, and experience the Costa Rican rainforest! Stay at the beautiful Esquinas Rainforest Lodge in the untouched herpetological paradise that is Piedras Blancas National Park. Meet new friends, relax in the naturally-filtered swimming pool or in the lush, fauna-filled tropical garden. Discounts for IFS and Chicago Herp Society members. For details, visit The International Fauna Society website at www.faunasociety.org or E-mail: info@faunasociety.org.

Herp tours: Adventure trips to **Madagascar**! Journey somewhere truly unique to seek and photograph nature on the world's least-studied mini-continent. For maximum herp fun and discovery, join Bill Love as we go where few people will ever venture in their lives. Let his experience assure a comfortable tour finding the most colorful and bizarre species on the planet! Get all the details at Blue Chameleon Ventures' comprehensive new website: < http:// www.bluechameleon.org> , E-mail: bill@bluechameleon.org, or call (239) 728-2390.

Herp tours: The beautiful Amazon! Costa Rica from Atlantic to Pacific! Esquinas Rainforest Lodge, the Osa Peninsula, Santa Rosa National Park, and a host of other great places to find herps and relax. Remember, you get what you pay for, so go with the best! GreenTracks, Inc. offers the finest from wildlife tours to adventure travel, led by internationally acclaimed herpers and naturalists. Visit our website < http://www.greentracks.com> or call (800) 892-1035, e-mail: info@greentracks.com

Internship: The Kentucky Reptile Zoo, a nonprofit organization, seeks student interns for the 2006 season. The zoo is an educational exhibit, reptile breeding and venom research facility located near Kentucky's Red River Gorge and Natural Bridge State Park. The intern will assist in the captive maintenance of the zoo's reptile collection, collect admissions to the exhibit, give interpretive talks and interact with the public, assist with educational outreach programs, and perform other duties as assigned. In addition, the intern will be responsible for the completion of at least one research project related to the field of herpetology. The intern will *not* be involved in the handling of any venomous species. Desirable qualifications include a willingness to handle snakes and other reptiles on a daily basis, ability to communicate effectively with people, writing skills, orientation to details, and self-motivation. The intern will be required to work both Saturday and Sunday, with days off during the week. Students majoring in the biological or natural sciences are preferred. Interns are required to be either college students or recent graduates. Former interns have arranged for academic credit with their institutions. Benefits include experience with one of the most extensive and diverse collection of snakes in the U.S., housing and $55/week to cover expenses. Interns have been successful in finding zookeeper positions: over 95% hire rate! Personal transportation is recommended. A valid driver's license is required. Starting dates are flexible, but a minimum of 3 months covering spring (April–June), summer (June–August), or fall (September–November) is required. Deadlines are February 1 for spring, April 1 for summer and July 1 for fall. To apply send a cover letter, resume, transcript, and at least 2 (preferably 3) references to: Kristen Wiley, Internship Coordinator, Kentucky Reptile Zoo, 200 L&E Railroad, Slade KY 40376. Or E-mail: kyreptil@pop.mis.net.

Virtual Museum of Natural History at www.curator.org: Free quality information on animals—emphasis on herps—plus expedition reports, book reviews and links to solid information. Always open, always free.

Wanted: To hire housesitter and feeder of female reticulated python in Washington, D.C., for late spring/summer 2006. To learn more, contact kbricker@oceanconservancy.org or call (301) 320-4457.

Wanted: Volunteer to help with midwestfrogs.com web site by transcribing videotaped interviews with frog biologists (from VHS). Dave McGowan, dmcgowan3@earthlink.net.

Wanted: I'm looking for my soulmate. I want to settle down to a family before it is too late. But I have this problem. . . . When we get into hobbies and interests: old popular records, jazz and show tunes, and antique electronics are fine, but when I mention turtles, "What, are you crazy?" So maybe this is a better place to look. Please don't try to separate me from my turtles—at least not most of them. If interested, please drop a line to Ellis Jones, 1000 Dell, Northbrook IL 60062, telling a bit about yourself and giving a phone number.

Line ads in this publication are run free for CHS members—$2 per line for nonmembers. Any ad may be refused at the discretion of the Editor. Submit ads to: Michael Dloogatch, 6048 N. Lawndale Avenue, Chicago IL 60659, (773) 588-0728 evening telephone, (312) 782-2868 fax, E-mail: MADadder0@aol.com.

UPCOMING MEETINGS

The next meeting of the Chicago Herpetological Society will be held at 7:30 P.M., Wednesday, January 25, at the Peggy Notebaert Nature Museum, Cannon Drive and Fullerton Parkway, in Chicago. **Dr. Paul T. Andreadis**, Visiting Assistant Professor at Denison University in Granville, Ohio, will present a program entitled "I Like to Watch: Insights from Observing Herps." Paul will show field video of various herps (and other animals), with emphasis on the foraging behavior of cottonmouths. His suggestion to all is: "In captivity, admire them, but admire what they do as well as how they look. In the field, catch if you must, but watch first if you can."

Please note that the last Wednesday in February is the 22nd. This is the earliest that our regularly scheduled meeting can ever take place, so don't let it take you by surprise.

The regular monthly meetings of the Chicago Herpetological Society take place at Chicago's newest museum — the **Peggy Notebaert Nature Museum**. This beautiful new building is at Fullerton Parkway and Cannon Drive, directly across Fullerton from the Lincoln Park Zoo. Meetings are held the last Wednesday of each month, from 7:30 P.M. through 9:30 P.M. Parking is free on Cannon Drive. A plethora of CTA buses stop nearby.

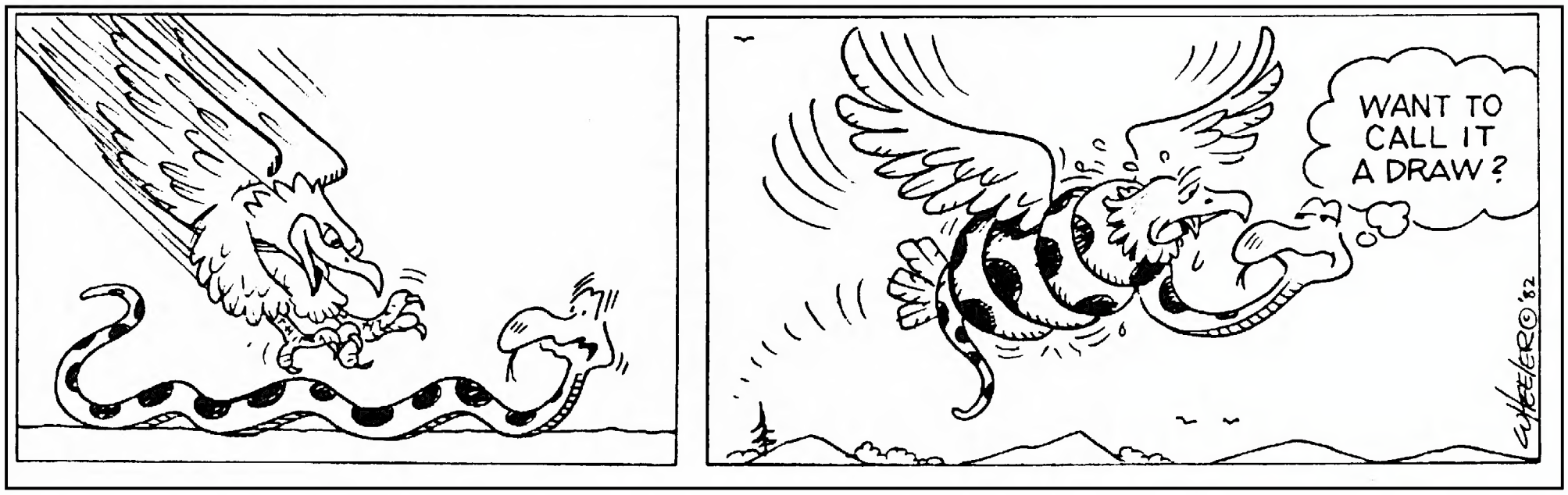
Board of Directors Meeting

Are you interested in how the decisions are made that determine how the Chicago Herpetological Society runs? And would you like to have input into those decisions? If so, mark your calendar for the February 11 board meeting, to be held at the North Park Village Administration Building, 5801 North Pulaski Road, Chicago. To get there take the Edens Expressway, I-94, and exit at Peterson eastbound. Go a mile east to Pulaski, turn right and go south to the first traffic light. Turn left at the light into the North Park Village complex. At the entrance is a stop sign and a guardhouse. When you come to a second stop sign, the administration building is the large building ahead and to your left. There is a free parking lot to the left and behind the building.

The Chicago Turtle Club

The monthly meetings of the Chicago Turtle Club are informal; questions, children and animals are welcome. Meetings normally take place at the North Park Village Nature Center, 5801 N. Pulaski, in Chicago. Parking is free. For more info call Lisa Koester, (773) 508-0034, or visit the CTC website: http://www.geocities.com/~chicagoturtle.

THE ADVENTURES OF SPOT



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